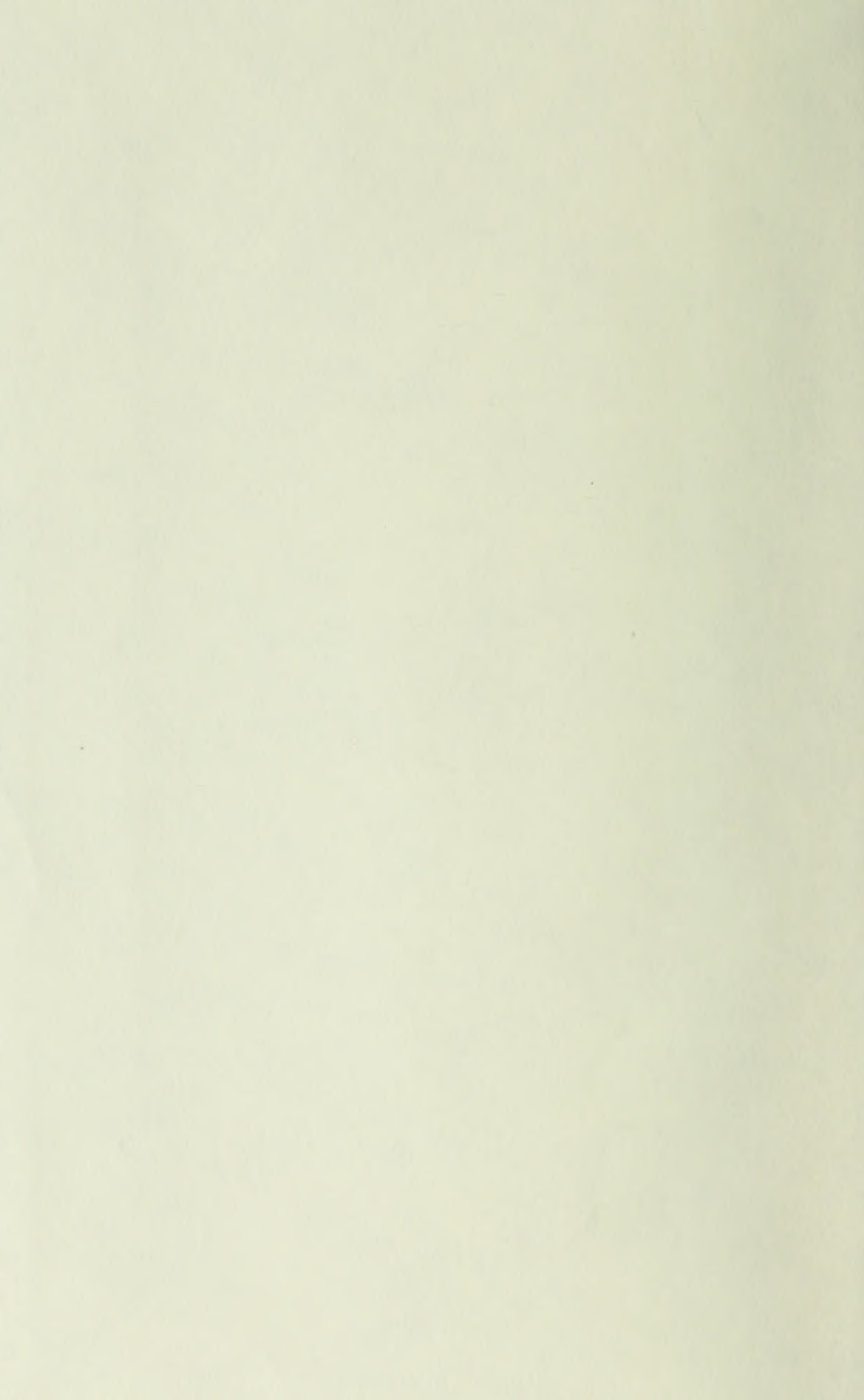






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THE THOUSAND AND ONE CHURCHES

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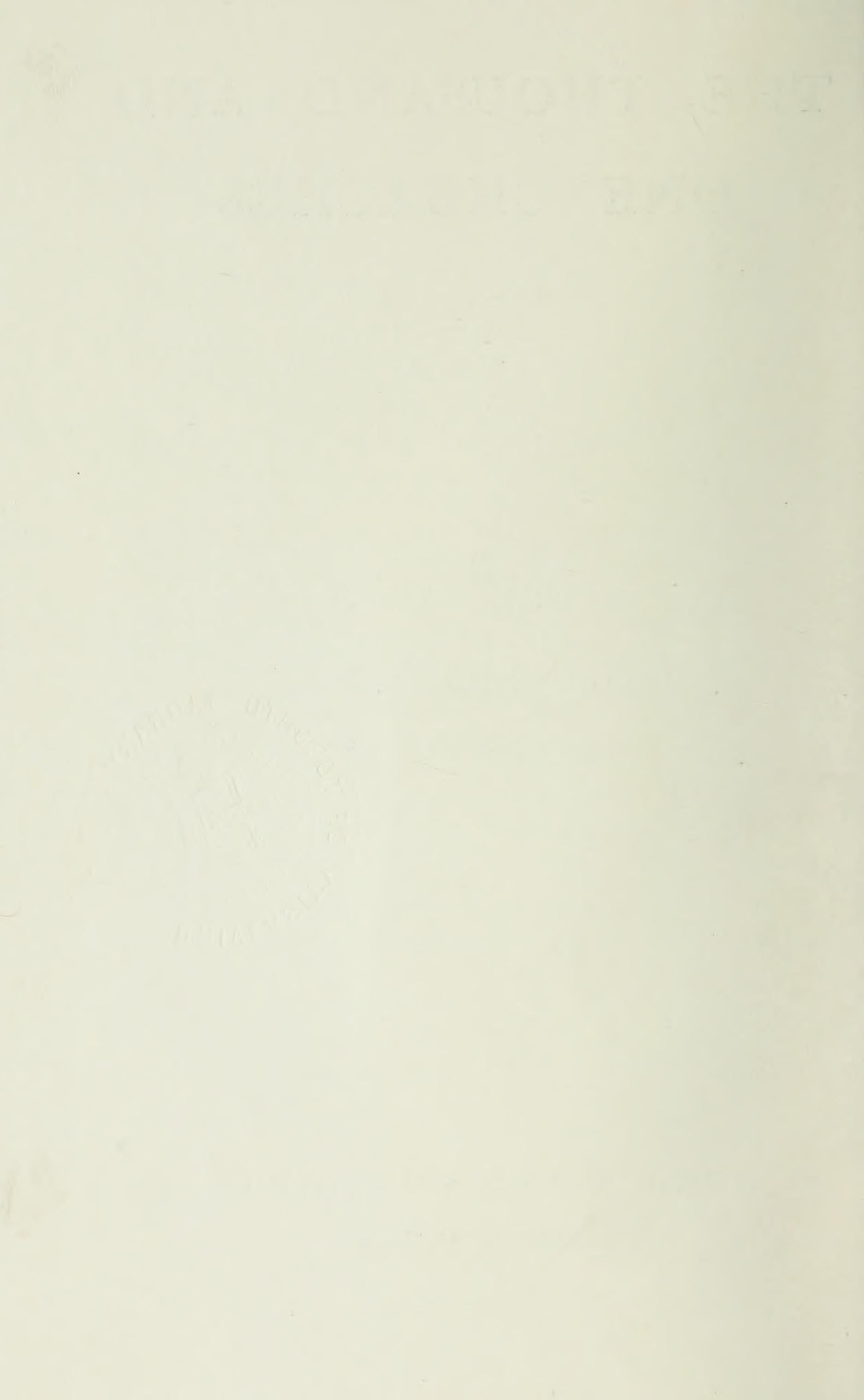
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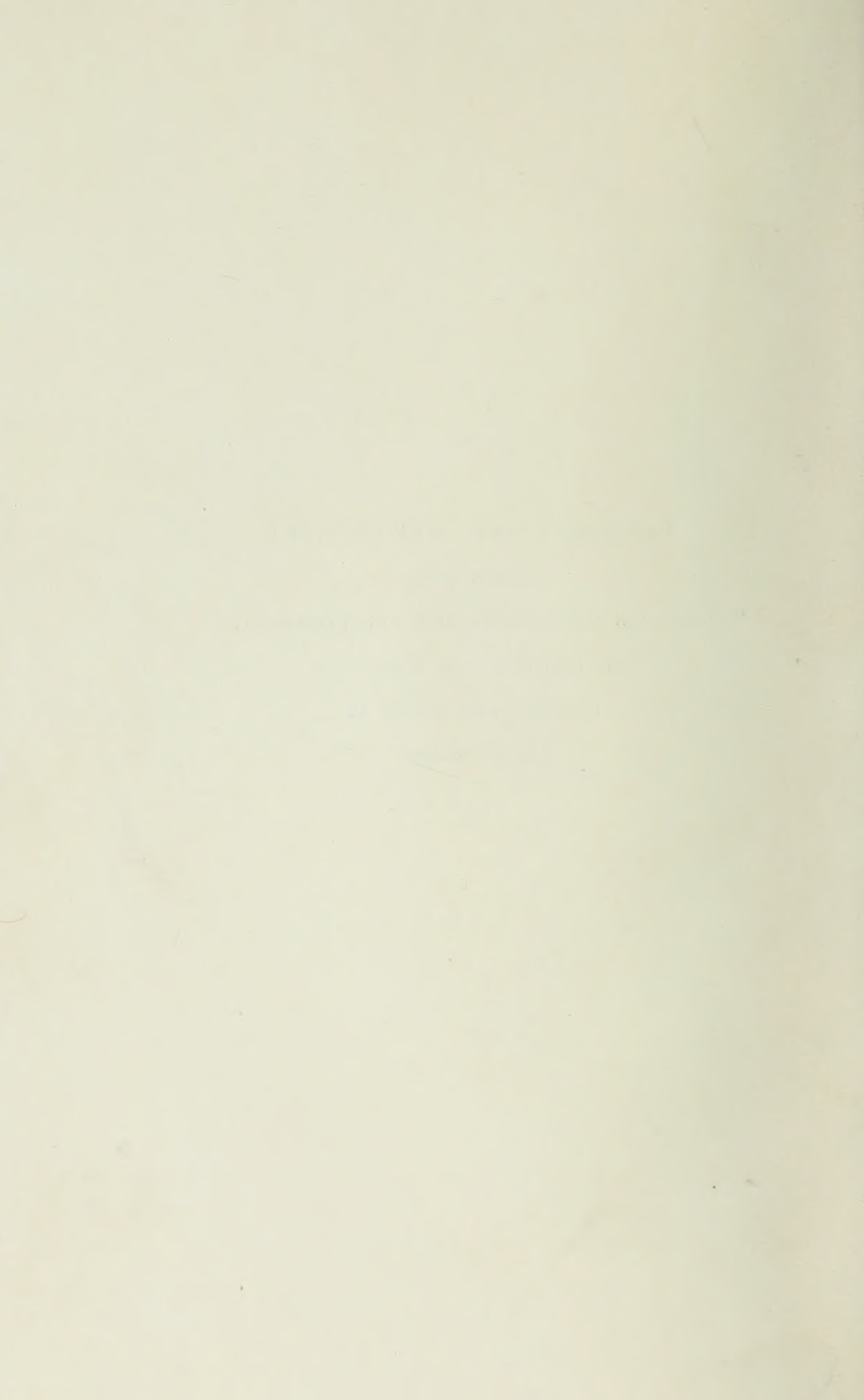
WHOSE BOOK

"KLEINASIEN EIN NEULAND DER KUNSTGESCHICHTE"

WAS OUR CONSTANT COMPANION

DURING MANY WEEKS AT

MADEN SHEHER



PREFACE

EVER since visiting the Thousand and One Churches along with the late Sir Charles Wilson in 1882, I hoped that some attention might "be given to these ruins, which are perhaps the most interesting in Asia Minor for church antiquities"; but I had not the knowledge of architecture needed for the task, and therefore did not revisit the spot. It was only when Strzygowski's Kleinasien ein Neuland der Kunstgeschichte drew attention to the site, that my old hope had any chance of fruition. In 1905 Miss Gertrude Bell was impelled by that book to visit Bin Bir Kilisse; and, when I met her at Konia on her return, she asked me to copy an inscription on one of the churches, in letters so worn that she could not decipher it, which she believed to contain a date for the building. Her belief proved well founded, and the chronology of the Thousand and One Churches centres round this text. I sent her a copy of the text, the imperfect result of four hours' work, but giving the date with certainty; longer study was prevented by a great storm; and I printed in the *Athenæum* the impression made on me by a hurried inspection of the ruins, mainly in order to reiterate in more precise form my old hope that an important

architectural and historical investigation might be performed by an architect and an epigraphist, combining their work for a month or two on the site. This letter attracted her attention ; she wrote suggesting that we should undertake the task ; and as no one else seemed likely to do so, my wife and I arranged to join her in 1907.

We were just in time to do the work. The site was entirely deserted when Hamilton visited it in 1836 ; now there are small villages in both the city of the valley and the city of the hill ; and the process of ruin, which formerly proceeded at the easy pace set by Nature, is now beginning to be accelerated by man. There is a melancholy difference between the facts of 1907 and the facts of 1909. We have therefore multiplied the number of photographs, many of which show what is now lost.

The site is one of unique interest. As stated in my letter in the *Athenæum*, the city is late Byzantine, but the churches are of all ages, from the fifth to the eleventh ; and our work has fully justified the words there used "that the proper exploration of Bin Bir Kilisse and Deghile (the city of the valley and of the hill) is urgently needed in the interests of Byzantine history and of Christian architecture". Nowhere else can one find Church development through so many centuries exhibited on one ruined site in such clear and well-preserved examples.

Parts II. and III. are the work solely of Miss Bell, and it is by them that the value of the whole book must be gauged. I am responsible for Parts I. and IV. But all the buildings of the two cities except No. 29, and those on the summit of the mountain, were

studied in common; and divergence of opinion either was eliminated in discussion on the spot, or is noted in the text; No. 29 was excavated by me in 1908, and seen by her in 1909, when already much had been again covered. The buildings on the other hills I have not seen, except those on the col of Bash Dagh.

The attempt is made to arrange the inscriptions on the churches in chronological order: but this can be done only in a rough and approximate way. The principle of order lies in the growing degeneracy of education and spelling, which I assume to have been intensified in the post-Arab time. By long study on one site one acquires a certain feeling for the sequence of history there; and I have followed this acquired instinct. The epigraphic copies which are given do not always reproduce faithfully the rudeness of the letters: one's hand unconsciously makes the forms and the alignment too regular. The first epigraphic copies which I prepared for reproduction were accidentally left in Konia with our camp equipment in July, 1909 (see p. 521); and new copies had to be made with less advantages.

To facilitate reference to former travellers, we retain as far as possible the numbers by which they designated the churches, though the arrangement is arbitrary. One church at Deghile was included by Crowfoot and others in Maden Sheher, and numbered 2; this is now 32, and the other buildings at Deghile, 1, 14, etc., appear as 31, 44, etc. As No. 2 we have taken the mosque at Maden Sheher, which stands on the site of a church; in 1908 it was rebuilt as a school.

The accounts of the Thousand and One Churches published by Laborde, Hamilton, Texier, Holtzmann, Crowfoot and Smirnov (the last two in Strzygowski)

deserve mention. I had hoped that Sir C. Wilson would add important material, as he has done in some other places ; but although Lady Wilson kindly allowed us to see his notes, taken on the very hurried visit of a few hours in 1882, they proved to be in a sort of architectural shorthand, which only he himself could understand.

We had hoped that the upper mountain might be the haunt of some characteristic animals ; but one of my sons, who investigated this subject amid many difficulties, found that the fauna is similar to, though more varied than, that of the Lycaonian plain. He caught several examples of Meriones blackleri, of which the first known specimen was recently discovered near Smyrna. He also found the hedgehog (Erinaceus concolor), the wolf, a species of mouse (Apodemus mystacinus), the hare (Lepus syriacus), and the skull of a badger, but not the living animal : these are characteristic of the Lycaonian mountains in general, but not of the open plains. No field mice or voles were found ; but beside Konia the former (both Micromys sylvaticus and M. meridionalis) were trapped, as well as several jerboas (all belonging to a new species of the genus Alactaga). Other mountain animals were common to the plains. As might be expected, birds are found in much greater variety on the mountain than in the arid plains ; but I need not reproduce here the list.

Many notes for the three plans, and all our careful facsimiles of inscriptions, were accidentally left at Konia with our camp equipage. I planned both Maden Sheher and Deghile in 1907 and again in 1908 by compass and pacing ; and the sketches (which agreed well) came home

with me, but not the numbers needed to give an exact scale. The plan of the Kara Dagh had to be done largely from memory, assisted by some rough sketches. The map of Lycaonia is mainly after Kiepert; my own map disagrees, but it did not cover the extreme southern part of the country, and I merely altered Kiepert's Boz Dagh district. The name of the Karadja Dagh (on which Thebasa stands) has been omitted by my forgetfulness. In the plan of the Kara Dagh, p. 294, the western half of the path to Deghile from Maden Sheher has been omitted by the draftsman; the entire road, which winds very much in the western half, was indicated in the plan which I gave him to re-draw.

It may be explained that the proper form of the name Deghilé is very doubtful: in the spelling that we adopt the word is to be pronounced as a dissyllable, and gh is to be understood as almost silent, so that ghi approximates in some degree to the sound of v. The spellings Daoule and Devle seemed sometimes to express better the sound that we heard.

For many suggestions and ideas, which cannot be mentioned in detail, I was indebted to my wife.

The view which I have maintained from 1905 onwards is that several of the late churches were built on the lines of early churches, though their style is later. At the last moment Mr. Lethaby sends me a theoretical restoration of a doorway in an eleventh-century church at Anazarba. The door has a pointed arch, and each stone bears a Greek letter. He finds that by completing the curve and adding the required stones and letters, he gets a semi-circular arch bearing the inscription *εὐλόγητος θεός*, and advances the theory that a

round-headed door of the fourth or fifth century was rebuilt with a pointed arch in the eleventh century by the Armenians. This exemplifies, from a totally different point of view, the theory which appears to suit several of the late churches at Maden Sheher, such as No. 10 and No. 5.

W. M. RAMSAY.

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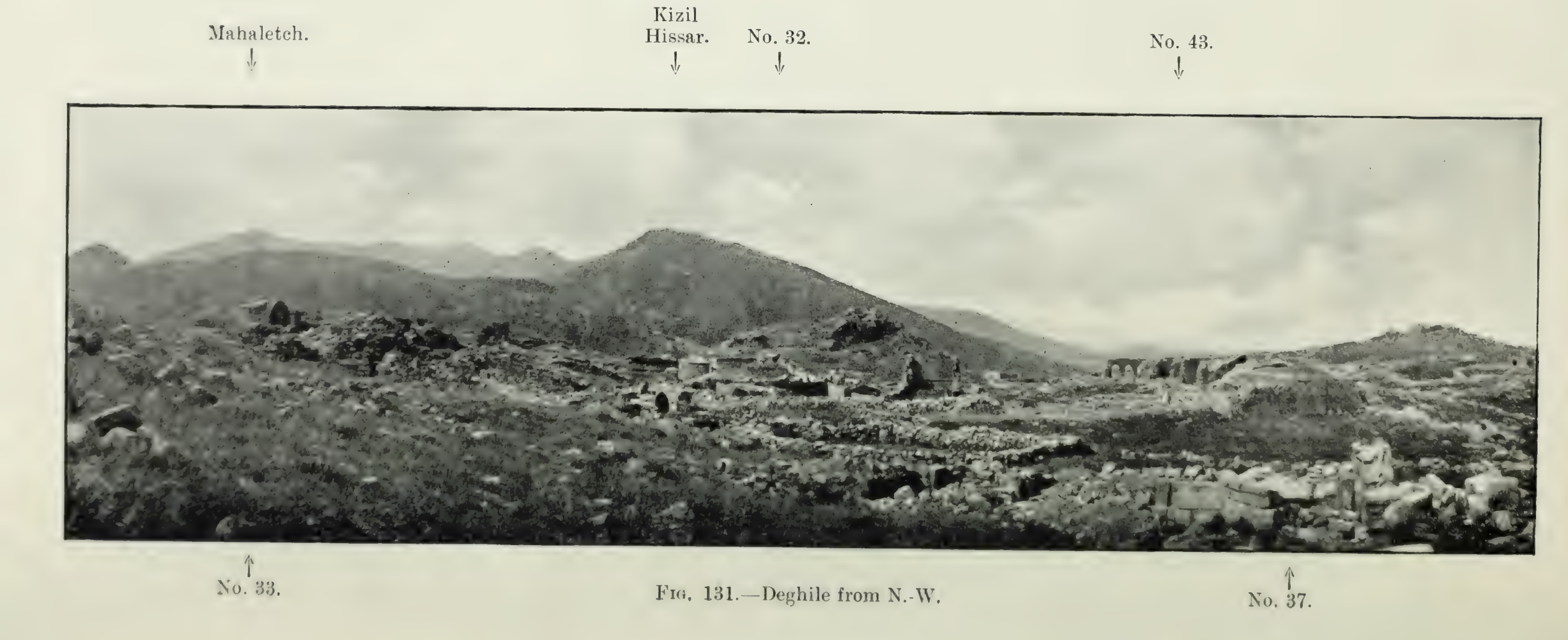
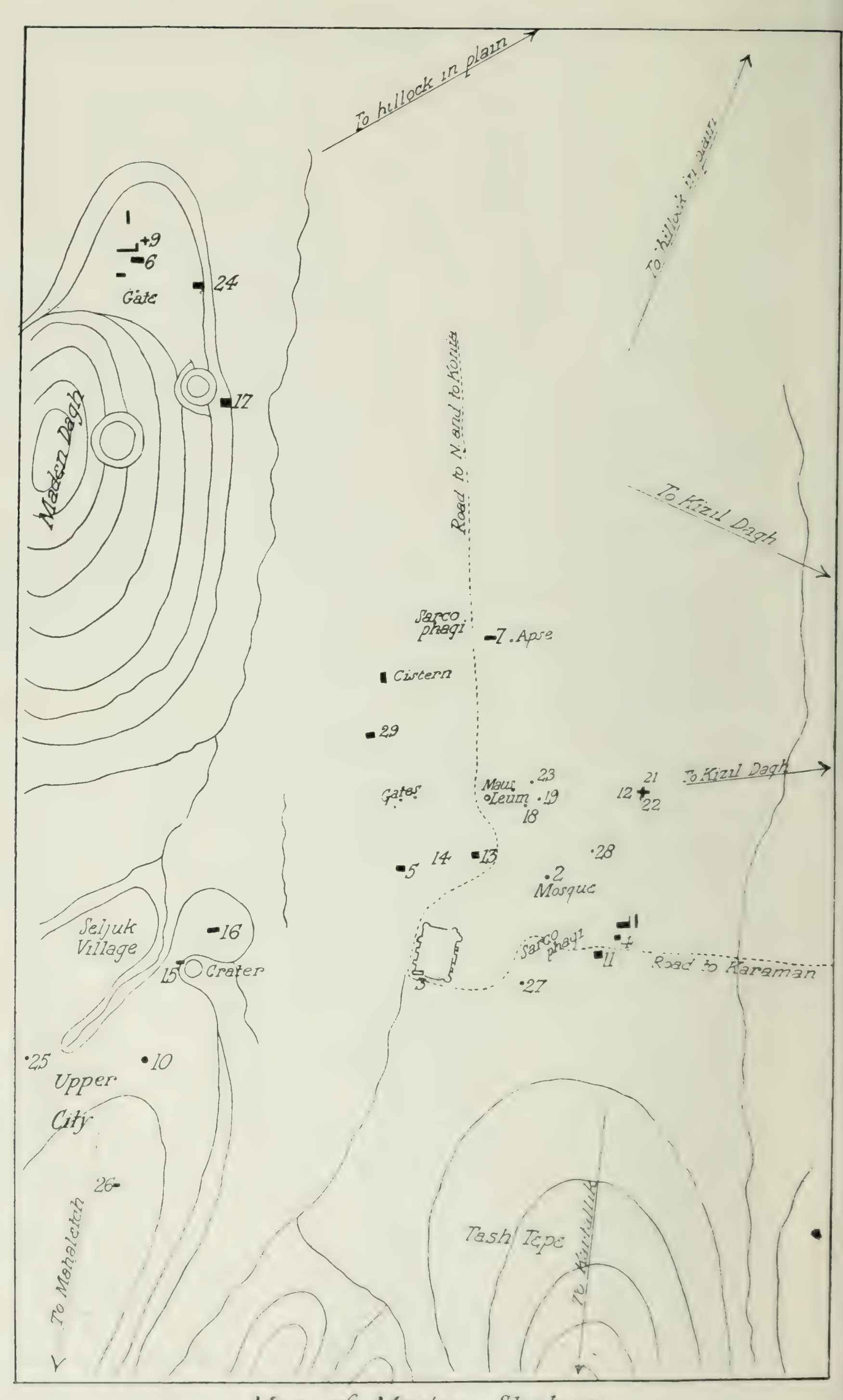


Fig. 131.—Deghile from N.-W.

PART I

SITUATION AND HISTORY



Map of Maden Sheher

PART I

SITUATION AND HISTORY

(Maps, pp. 2, 294, 296 and 502.)

Fifty to sixty miles south-east of Iconium (which under the name Konia is still the capital of a great Province, with a railway station) there rises from the level Lycaonian plain an island of volcanic mountains, oval in outline, with the longer axis nearly north and south, called Kara Dagh (Black Mountain). The plain around is approximately 3,300 feet above sea level: Mahaletch, the highest peak of the Kara Dagh, rises to a height of nearly 7,000 feet.[1] The mountain contains two parts, each with a great crater. Bash Dagh is the highest point of the southern part, and seems from a distance to be higher than Mahaletch. The natives consider it to be the summit of the whole mountain, and hence give it the name "Head-Mountain"; but Miss Bell, who has ascended both, feels no doubt that this is a mistake, and my reading on the aneroid, at a height which I guessed to be about 500 feet below the summit of Bash Dagh, confirms her view. Snow lies much later on the western side of Mahaletch than on any other part of the mountain.

[1] Dr. Olmstead, of the Cornell Archæological Expedition, visited us in 1907. He ascended Mahaletch before I did, and mentioned that, according to his aneroid, which he regarded as a perfect instrument and absolutely reliable, the peak of Mahaletch was barely 6,000 feet above the sea. I ascended once from Bin Bir Kilisse, and twice from Deghile, in 1907; and the readings on an aneroid, lent (and tested before and after the journey) by the Royal Geographical Society, were uniform in making the height round about 7,000 feet. In 1908 I was at a point above 6,000 feet on the east side of the mountain. We had the same base from which to estimate differences, *viz.*, the altitude of the German Railway and the level plain, and it is quite possible that 6,000 is the true altitude: it is a question of aneroids.

The Kara Dagh is a mass of volcanic rock, porphyritic in structure, thrown up through the limestone which in perfectly horizontal stratification composes the plain of Lycaonia. Hamilton observed on the eastern side of the pass, which leads from Maden Sheher across the ridge direct eastwards, "a good section of the limestone rocks, much broken and disturbed, resting against porphyritic trachyte, which both in colour and in texture resembles that near Smyrna".

Mahaletch (often pronounced by the natives Mahlutch in the oblique cases) is a peak in the rim of the large northern crater, a great oval hole, nearly three miles long from north to south (so far as one can estimate by eye and by the time occupied in going round it). It is crowned by the great church dedicated probably to Michael,[1] with a small monastery and a memorial chapel of Leo attached. From it one has a wonderful view, embracing on the south the front wall of Taurus with its long line of snow lying as late as June and July, the still loftier ridge of Ala Dagh, Karadja Dagh (over 6,000 feet), and the twin peaks of Hassan Dagh on the east, the low bare ridge of Boz Dagh on the north, and the Pisidian mountains on the west, with a vast stretch of dead level plain on every side of the island-mountain. The Kara Dagh was once literally an island, for the plain of Konia was a great fresh-water sea in an earlier geological period: later, as the water sank, it was divided into several lakes; and there still remain a number of small ponds, and several lakes and marshes of moderate size, besides the great marshes formed in the spring by the Tcharshamba Su, which pours the waters of the Isaurian mountains into the plain.[2]

Bash Dagh is a peak on the northern rim of the southern crater, and opposite to it on the southern rim is a similar peak of approximately the same height. Each peak is crowned with a castle, and there are several other buildings on the eastern rim (described p. 280 ff.). In the centre of the crater is a spring

[1] Taking Mahaletch as a reminiscence of the name Michael, see Part IV., 59.

[2] The regulation and distribution of this water is a great enterprise, which the German Railway Company has contracted to perform for the Turkish Government, and is now engaged upon. See p. 32.

of good water and a circular pond surrounded by a built margin. This series of buildings shows that the southern half of the Kara Dagh was an important military station in the Byzantine period, and perhaps even at an earlier time. These southern peaks, however, are not suited to support a city, and can hardly have had importance except from a military point of view. Great part of the southern foot of Bash Dagh is a wilderness of black rock and gravel, where nothing green can grow, and this part of the Kara Dagh is mostly too steep to permit the growth of anything beyond grass and scrub and saplings.

Far more important as a centre of human life and work is the mass of mountain round the much larger northern crater, dominated by Mahaletch. The hills and peaks are more numerous and more scattered. Between them are high glens and glades. There are tracts of more gently sloping hill-side, with several springs of good water, and by the application of care and skill considerable use was made in ancient times of these parts of the mountain. The vine was once cultivated abundantly, and even at the present day some few grapes are produced. Many fruit trees were grown in ancient times; and still there are on the hills wild fruit trees, apple, pear, two kinds of plum, almond, peach, apricot, etc., the untended degenerate offspring of the formerly cultivated trees. In the northern part of the great crater a small lake gathers in the spring; but it seems to discharge its water rapidly through one or two springs, and is dry before the end of June, when these springs also cease to flow. In a sheltered vale under the north side of Mahaletch is a small forest, where the trees grow to a moderate size and height, in marked contrast with the slender saplings that are found on the inner parts of Bash Dagh and on Karadja Dagh (so far as I have seen the latter). One of the trees, no bigger than the rest, supported in the top an eagle's nest. The sight of this forest is refreshing in the treeless Lycaonian country; it is unique in my experience in the land, and this was confirmed by the information which the natives of Kara Dagh and Karadja Dagh gave me on the subject. The existence of this forest has some bearing on ancient topography (see the concluding chapter).

The northern foot of the Kara Dagh presents a marked contrast to the southern. It offers a considerable extent of fertile soil, which is in part still cultivated, and here lay the principal centre of population, an ancient city evidently once large, rich and prosperous. This city, with its outlying subsidiary settlements, forts, monasteries and churches, is our subject in this volume.

The city was situated in a rounded opening on the northern edge of the mountain,[1] a little valley sloping up to the south, bounded east and west by two projecting spurs, Kizil Dagh and Maden Dagh, having on the north a front valley slightly larger and also hemmed in by outlying hills, while on the south it is overhung by the great peak of Mahaletch, flanked by smaller peaks, Kartallik (Eagle's-haunt), Djandar, etc. This valley is dotted over with the ruins of an ancient city, which is now called by its few inhabitants Maden Sheher, and by the people of the surrounding country Bin Bir Kilisse (Thousand and One Churches), from the large number of great buildings which stand high above the field of ruins. These buildings are almost all ecclesiastical, and the picturesque name is suitable; but in actual fact the Turks often use the name Kilisse for a ruin which was never a church. The number is an Oriental fancy:[2] there are about twenty-eight churches in the valley, with several hundred houses, cisterns, etc.

The place is far from any of the modern centres of population, and the access has not been good in modern times, since

[1] This position is typical in Lycaonia. Savatra, Laodiceia and Isaura Nova look out similarly to N. from little valleys flanked and backed by hills.

[2] The Turks have four typical numbers, used commonly in local names, 3, 7, 40 and 1001. There are two places in Lycaonia called Utch Kilisse, one a village, one a ruin, both about ten hours S.-E. or S. of Konia. Yedi-Kizil Serai (Seven Red Mansions) in Phrygia and Kirk Agatch (Forty Trees) in Lydia may be quoted. A Turkish officer, who had visited Kara Dagh and Karadja Dagh, told me with characteristic looseness as to details that there was a wonderful ruin Kirk Kilisse in Karadja Dagh: he meant Bin Bir Kilisse in Kara Dagh, as I found out by a toilsome exploration in the direction which he named; 40 and 1001 were to him practically of the same import, a vague large number.

the roads fell into disorder. Moreover, the stone of the valley, though an excellent building material,[1] is not counted valuable.[2] Hence there has been no exploitation of the ruins for purposes of building in Konia and Karaman, as Savatra and other cities have suffered. Maden Sheher is the one ancient site known to me[3] whose chief buildings practically have been left to the hand of Nature and the gradual decay caused by wind, rain, earthquakes, etc. The population is so small and so ignorant, and stone from the old houses is so abundant and so much more easily procured than it is from the greater ruins, that the churches have been little touched by man. Some of them were devoted to new purposes in the period when there was a Christian town side by side with a Turkish town; but the Christian population seems to have gradually disappeared during the Seljuk period, while the Turkish town also dwindled away.

The destruction of this ancient city has proceeded comparatively slowly, but it goes on steadily. Every year produces its effect. Church No. 8 was standing in 1907 to a considerable height, and was one of the most interesting and picturesque monuments of the city. In 1908 I observed no change in it: in 1909 all the higher parts had fallen, and the structure had become a ruin, deprived of its most striking features. In 1908 the little porch on the north side of church No. 1 was nearly complete: in 1909 most of the concrete summit of the vault had fallen. In 1907 the great church on the summit of Mahaletch was still so nearly complete that the entire structural design from basement to dome was clear: in 1908 the dome

[1] It is a felspar porphyry, ruddy in hue, hard and durable: the ruddy tinge is sometimes paler, inclining to grey. It is, however, not good for epigraphic purposes, because it is too hard, and the large crystals make it variable in the grain.

[2] The Turks distinguish *mermer* (including both marble and good limestone) from *kara tash* (black stone): the former is habitually transported great distances for building purposes, but the latter remains neglected generally.

[3] Perhaps Pambuk Kalessi (Hierapolis of Phrygia), which is also built almost wholly of *kara tash*, may be placed in the same class: any marble used there has been carried away to build Denizli.

and the south wall had fallen.[1] In 1905 the whole line of upper arches in the north arcade of No. 32 was standing: in 1907 they had all fallen. In 1882 great part of the north arcade and clerestorey of No. 3 was standing: before 1897 all this part had fallen, and even the ruins had been cleared away to leave the soil free for a melon garden within the outer walls of the church. The drawings of Laborde show how seriously the churches had suffered in the sixty years preceding our examination of the ruins. On p. 93 a photograph which was taken in 1907 from the same point as a drawing by Laborde shows the ruin that had been wrought in the interval.

It is needless to multiply examples of the rapid rate at which the churches are decaying. Already much of the work which we did in 1907 has become the record of a vanished past; and therein lies its value. We were just in time to save the memory and the outward appearance of churches which can never now be studied except in our photographs.

The site of this ancient city is double, and the relation between the two parts is obscure. Our work in 1907 has thrown no light on this matter; and we are reduced to an estimate of probabilities based on the general and obvious facts of the situation. There are two sites almost completely separate from one another. The larger and apparently more important site lies in the middle of the gently sloping vale between Kizil Dagh and Maden Dagh. Here is the largest group of churches, and here are the scanty remains of many houses and probably of several public buildings that are not ecclesiastical. Here also are a large number of cisterns. Here two aqueducts at least can be traced under the surface of the ground, and here is far the most elaborate series of agricultural preparations in the form of terraces and barriers to hold up the water that flows from the hills. This site is so large that excavation would be useless unless it were done on a very great scale. We began to dig at various points, where the lines of ancient streets seemed traceable,

[1] In this case the destruction was due to the hand and the folly of man. The natives learned in conversation with us that the chapel was the memorial of Leo; and they dug on the south side of the church, hoping to find his grave with treasure in it.

or where gateways of size too large for private houses seemed to indicate the former existence of public buildings. But in every case the remains proved slight, discontinuous, and complicated by the appearance of other walls crossing the first obliquely and evidently belonging to a different age. The now ruined city was built on and across an older ruined city; and to disentangle the confused plan would have required long work, more efficient instruments than we had at our disposal, and an expenditure of at least £5,000, probably a good deal more.[1] Even if we had had the money, there was no apparent prospect that a thorough excavation would produce any results commensurate with the outlay. The city was inhabited by a poorly educated and rustic population, and there was no hope of any important epigraphic, still less of artistic discoveries, while almost all the buildings except the churches and the doorways had been destroyed down close to the original level of the soil as shown by the thresholds of the doors. The fact that so many doorways, with their monolithic side-posts and lintels, remain standing, while the walls have almost or quite disappeared, suggest that the structures of which the doorways formed part were humble and unpretentious in architecture.

Our investigation was therefore confined to what was on the surface, clearing the lines of buildings by excavation, and making sometimes deeper trials, to disclose the character of an accumulated heap of earth and to test the possibilities of the situation.

The other part of the city lies south-west of the part just described: it is situated on a high narrow elongated plateau, projecting northward from the main mass of Mahaletch and Djandar, and terminating in a blunt indented point. This higher part is divided from the city of the valley, not merely by marked difference of elevation, but also by a stretch of soil devoid of apparent remains, by a deep circular depression (probably an old crater) under the eastern side of the plateau, and by considerable traces of fortified walls round the edge of the

[1] Moreover, our permission from the Turkish Government did not grant the right to make elaborate excavations; but all the officials were very well disposed to us, and not inclined to make too careful scrutiny of the extent of our work.

plateau. These traces are most numerous on the western lip of the crater. They are built in a series of lines one above another, and I hesitated at first whether to class them as terraces for agricultural purposes or as defensive walls; but after careful examination the former supposition seemed untenable. At intervals for a long distance on the eastern and northern edges of the plateau remains of these walls can be traced by careful observation; but they are very slight, and are not likely to last. On this plateau there are only five churches, Nos. 10, 15, 16, 25 and 26.

These two parts of the city may conveniently be distinguished as "Lower City" and "Upper City". The relation between them we must now attempt to determine.

In the Upper City were found the only certain traces of pre-Hellenic life which we met with. These were two scraps of pottery, found in a field in the indentation of the northern point of the high plateau, near the mediæval fountain (on which see p. 37). One of these was picked up by the Cornell explorers, who visited us about the beginning of our residence, and whose work in Asia Minor has been distinguished by a careful and systematic collection of the terra-cotta fragments on every ancient site. Later in the same day my wife picked up a fragment of similar character. Both were classed by Dr. Olmstead, who has long devoted himself to this study, as "Mycenæan" in character; and I think that Mr. A. J. Evans, if he had seen them, would have classed them as "late Minoan"; and their pre-Hellenic date may be regarded as a safe fact to start from in our investigation. Subsequently we bought part of the crop growing in the field and dug some trenches, but found nothing except late and coarse ware. These two fragments remained to the end the sole traces of the early Anatolian period which we found on this site. Unfortunately, they were lost in shifting camp to the mountain site of Deghile some weeks later.[1]

[1] It was to have been my task to superintend the orderly removal of various groups of pottery and other things: but in the early morning I went off with a villager to see some inscriptions reported at an hour's distance, expecting to return in good time. It took five hours of very exhausting travel to reach the inscriptions (which included the Hittite monument on Kizil

Great part of the surface of the Upper City is absolutely bare, and has apparently been under cultivation at some comparatively recent period. But towards the northern end there are considerable remains of a confused mass of buildings, and some sarcophagi presenting no features of interest. The buildings probably belong to the Seljuk period, and are the remains of a Mohammedan village that arose here after the country passed into the hands of the Seljuk Turks about 1072. Church No. 10 was then converted into a bakery, No. 25 into a mill or a house, and No. 15 into a mosque. Apart from the churches, the remains on this site that can be dated with certainty belong to the pre-Hellenic and the early Turkish period. Though the remains of the earlier class are so scanty, yet there can be no doubt that there was a considerable settlement here in what we may call the "Anatolian" period, *i.e.*, the age prior to Hellenic influence; and I should conjecturally assign the fortifications also to that period. The evidence of Hittite inscriptions and sculpture on the rocks of the Kara Dagh [1] shows beyond question that there must have been an important centre of population in some part of the mountain at a very early time; and the natural conditions leave no room for doubt that Bin Bir Kilisse must inevitably be the centre.

On the other hand, the remains on the surface in the Lower City belong entirely to the late Roman and Byzantine period. Nothing was found which gave any hope of finding traces of Hellenic or pre-Hellenic life at any determinable place. Systematic and thorough excavation would, without doubt, disclose pre-Hellenic remains, but (as stated above) the site was too vast for work of that kind.

The question then is, what was the relation between the Lower and the Upper City. If we may advance a conjecture, founded on the analogy of other cities, we must regard it as in the highest degree probable that the Upper City was the early

Dagh, along with meaner things); and our servants left all despised scraps of pottery on the ground or threw them away. The task of moving so large a camp with inadequate transport was really difficult, and the servants could not fairly be blamed.

[1] See Part IV., 1-3.

centre. This site is naturally strong, and easily defended on all sides except against an attack coming from the mountain above on the south. The city, however, belonged to the lords of the mountain; and there was no reason to dread attack on that side, as the hills are steep and easily defended. Both mountain and city were held by a compact population, and would resist or be conquered together.

The Lower City grew up in the Hellenistic or the Roman period. Originally sepulchral and religious monuments had probably been placed in this position in front of the original city (*πρὸ πόλεως*); but trading convenience and the peaceful conditions of the Roman period drew the population from the Upper City more and more to the Lower. In the early Byzantine period this Lower City was extensive and probably undefended; and it occupied most of the ground between the two water-courses (now dry except after heavy rain) which flow northwards on the east and the west side of the open valley. This space is crowded with ruins from church No. 7 southwards.

A defenceless city like this must have fallen an easy prey to the Arab invaders, who began to overrun Asia Minor soon after A.D. 660. In the terrible centuries which followed, when every year one or more raids swept over Anatolia, such a city was necessarily deserted. Not even the Upper City was defensible against the dreaded assault of the Arabs, and the population sought refuge in the higher parts of the mountain, especially at Deghile, which was the chief centre of population from A.D. 700 to 900.

Deghile is a site high on the north-western spur of the Kara Dagh, about 1,500 feet above, and about three miles west of, the city.[1] It occupies a small glen, stretching from south to north between two parallel lines of pointed hills. The ground falls very sharply away outside these hills on the west and south and part of the east side. On the north the glen is shut in by a much loftier ridge of hills running east and west, and forming the extreme elevation of the Kara Dagh in this direction: they fall

[1] The road winds much, and the distance by road is more than, but in an air-line less than, three miles.

sharply off into the plain on the north, except where they are united by a very low neck with an outlying ridge of hills running away northwards.

In this glen several monasteries were gradually formed. Beginning perhaps on a humble scale as early as the fifth century, they increased in size, and buildings on a great scale were erected. It may be conjectured that when the city of the lower valley was ravaged by the Arabs in the end of the seventh century, Deghile came to be the main city of the Kara Dagh, and was fortified by walls. The new walls were not continuous, but were merely built to connect the existing churches and monasteries, so as to form a complete line of defence, which took advantage of the peaks and the very steep slopes on the west, south and east sides. On the north the walls and city seem not to have reached so far as the higher ridge, and thus there was apparently a gap in the defences; but the situation isolates the valley in such a way that attacks from Arab raiders could hardly be apprehended on that side, and not much indeed at any part. The walls were an additional precaution; but the true defence of Deghile lay in its elevation, in the roughness of the approaches and its distance from the plain.

From about A.D. 850 conditions became ameliorated in Central and Western Anatolia. The semicircle of fortresses which crown high points in Kara Dagh, Karadja Dagh, Arissama Dagh, Hassan Dagh, with "the Mother of Castles" (Zengibar Kale, Kyzistra) on the plains of Erjish,[1] and others, seem to have been nearly sufficient to restrict the range of the Arab raids which came through the pass of the Cilician Gates; and the population of the Kara Dagh began to resume courage and to reoccupy the exposed site of Bin Bir Kilisse. The abandoned churches were gradually restored or rebuilt, and the fallen houses reconstructed. It is to the period A.D. 850-1070 that the town whose ruins are now conspicuous belongs; but if the church buildings were exclusively of this period, their interest would be comparatively slight. Their importance lies largely in the considerable traces of older work that remain in them;

[1] See Ramsay: Lycaonia, in Oesterr. Jahreshefte, 1904, Beiblatt, p. 128.

and the most serious part of our task consisted in distinguishing the old from the new. The churches of Bin Bir Kilisse, I think, may be divided into three classes :—

1. Churches which survived the Arab inroad about A.D. 700. While there can be no doubt that the raiders, who captured at some time or other almost every city in Anatolia as far west as Ephesus and Pergamon, must have taken a city so near their basis of operations and their line of march, and so little able to defend itself, as Bin Bir Kilisse, yet there is no proof that they burned the town, or destroyed it in any thorough-going way. The probability is that the Arabs merely ravaged and pillaged it, and that the holy buildings, desecrated and plundered, were left to decay. This later city of the period 850-1070 was smaller than the early Byzantine city. The difference of size is most perceptible on the north-west side; and here, outside the later city, is No. 29, which was certainly pre-Arab, and not subjected to any restoration in the period 850-1070. When it decayed we cannot judge; possibly it fell into ruin before A.D. 850, and for some unknown reason was not restored. No. 8 also was probably of pre-Arab time, and was still standing fairly complete about 850. It may have needed some repairs, but the structure seems to have been sound. Possibly the churches of this class were for some reason maintained in repair even during the period 700-850.

2. Churches of pre-Arab time, which had fallen into serious disrepair before 850 and required restoration, but not rebuilding. These were restored by erecting subsidiary columns and aisle-vaulting; but the outer walls remained either intact or moderately high. The mode of restoration is fully described in No. 1, No. 6 and No. 7; and No. 12 may belong to this class.

3. Churches which were built, or rebuilt from the ground, after A.D. 850. It is quite possible, and even probable, that some of these may have been rebuilt on the lines of older buildings, which had decayed too much to permit of restoration, but whose general plan was still evident; and among these I should be disposed to class No. 3, and perhaps No. 10. Others were entirely new buildings; but the distinction between the two

groups of this class is largely conjectural. The old architectural tradition remained, and new forms and style were not introduced. The details will not bear examination. The work was coarse, though the plan was old and good. The measurements were always rough and inaccurate. In no case does any side correspond exactly to the opposite side. No real love for the work as such appears, no desire to make the architecture as beautiful as possible. The mouldings are flat and commonplace, the lintels and other parts where ornate character was specially required show poor designs or are perfectly plain. The ornament in the interior was in painted plaster or in mosaic, and has almost entirely disappeared, so that we cannot judge of its character. Yet with all their faults the buildings have a dignity and simplicity which are very effective. The great tradition of Byzantine architecture was preserved in this remote part of the Empire to the last. It did not decay and die out gradually; it merely came to an end when the Christian Empire expired and there ceased to be any theatre for its activity. It could not survive the loss of liberty. It was the latest expression of the free Hellenic spirit, and the church building under the Turkish domination lost the old character completely.

The name Maden Sheher, City of Mines, which is the proper appellation of the modern village, furnishes some not unimportant evidence, and calls for careful investigation.

There are some minor craters in the northern part of the mountain, besides the great crater, of whose rim Mahaletch forms a part. One of these, between the Upper and the Lower City, has been mentioned. The most remarkable, however, are two deep holes in the east flank of Maden Dagh (the hill which hems in Maden Sheher on the west side). The holes are called by the natives Maden, and from them is derived the name of the hill. The upper and much deeper of the two Madens is a circular hole in the rock, with almost perpendicular sides, several hundred feet deep, and 200 or 300 yards in diameter at the top. There cannot be any question that this is a natural hole, never used as a quarry or as a mine. At the bottom there are cuttings in the rock, which once served as places of abode or cells of hermits; and various graffiti have

been incised on them of the usual Christian type, "Lord, help," followed by the name of the suppliant.[1]

The lower Maden is not so deep, and the walls are not steep except on the west side. At first sight the possibility that it was artificial, the result of quarrying or mining operations, suggests itself, as the walls are more irregular than in the other, and the rocks seem to have been cut in places. Moreover, in 1907 my wife found in it a small piece of magnetite; but in 1909, when she picked up or broke off from the native rock a number of different specimens, none of them were of that class of stone; and apparently the single piece was a stray fragment. The rock in both these Madens is of the same character, and does not favour the idea that magnetite could ever have been mined here. The stone of which the Lower City generally was built, a felspar porphyry, sometimes of ruddier, sometimes of greyer tinge,[2] is slightly different in character from the stone of the two holes in Maden Dagh, and was apparently not quarried in them.[3] We did not discover the ancient quarries, but it would take a long time to explore even the northern part of the Kara Dagh thoroughly.

There can be no doubt that the modern name Maden Sheher is connected with that of the overhanging western hill Maden Dagh, and that the latter means the mountain in which are the two Madens. The hill is also called Geuz Dagh, "Eye Mountain": the two craters are the two "eyes".[4] Before learning

[1] I have not gone down into the holes myself, but judge from the accounts given by my wife and others, who explored them.

[2] Hamilton, Researches in Asia Minor, ii., p. 316, speaks of the "red and grey trachyte" of the north-eastern part of the Kara Dagh.

[3] In this negative opinion, however, I may perhaps be wrong, as the rock in this part of the Kara Dagh is generally of a porphyritic type, and the variation between the ruddier stone of the buildings and the greyer stone of the two Madens may be considered not to preclude the possibility that the lower Maden contained some rock similar to the material of the churches. The upper was not a quarry. The greyest of the building stone is, I think, ruddier than that of the Madens.

[4] Geuz is often used in the sense of a rounded opening: *e.g.*, the arch of a bridge is geuz: Tchok Geuz Keupreu, on the Halys, is the "Bridge of Many Arches".

what was the name of the hill, I had often wondered why the village was called Maden Sheher, for *maden* means mine or stone which is believed to contain some valuable mineral ; and, as the natives said, "They call it Maden Sheher, but there is no *maden* here". Why the two craters were called *maden* is not so easy to explain ; but it probably was because those two holes in the mountain were believed by the early Turks (p. 20) to be the approach to some valuable ore. At any rate the name must date back to the early Turkish period, for the wretched modern village could not have been dignified with the name Sheher, city. This name belongs to the time when there was a considerable population on the site ; and that was the case in the early Turkish age, and not in more recent period. As the water-storing constructions fell into decay, the site ceased to be capable of supporting a large population (see p. 31).

It may be assumed as a point to start from that these two Maden were regarded as holy places in the primitive Anatolian or Hittite religion. They were entrances to the underworld, where the wealth of the earth was stored. The resemblance of the upper Maden to the famous Corycian cave is striking; and probably no one will doubt that the former had a similar religious awe connected with it. We found, it is true, no definite proof of early pagan religious feeling ; but this failure is accounted for by the Christian foundations, which as we may assume were built in place of or on the top of the pagan shrines. On the summit of the hill, above the upper Maden, is an important Christian group of buildings (described in Part II.) ; and on the lower edge of the lower Maden is church No. 17, with monastic foundation attached, which, though numbered customarily as one of the city churches, is quite separate from the city and plainly an expression of the religious feeling that was connected with the Maden.

What was the name of this ancient city, whose remains form the subject of our study? On this point we discovered no epigraphic evidence, and without that we cannot attain to definite certainty. We must have recourse to general arguments, which localise Barata somewhere in this part of Lycaonia. Such arguments do not amount to absolute proof, until we can add

that there is no other site in the whole region to which the name Barata could be applied. This site is, certainly, worthy of the name, and I find no other site to which the name could with any probability be applied. So much we can say; but for the present we shall leave the ancient name a blank, and describe the monuments without any prepossession in favour of the identification with any known ancient city. In the concluding chapter of this work the arguments will be stated which led the present writer so long ago as 1890 to regard the Thousand and One Churches as Barata, and some reasons will be added which confirm that opinion.

There are many other smaller religious foundations in the Kara Dagh. (1) Most of the prominent peaks in the northern part of the mountain are crowned by churches, generally with small monastic buildings adjoining, to accommodate the personnel required to maintain the ritual. Such are Mahaletch, Maden Dagh, Kizil Dagh, Tchet Dagh, etc. In the case of Mahaletch the remains show that the Christian foundation replaced an older pagan establishment (see p. 255). That is probably true in some other cases: *e.g.*, the church on Maden Dagh has been without hesitation connected with the early belief in the sacredness of the upper *Maden* (see p. 17). Prominent peaks were very frequently pagan sanctuaries and high places.

(2) At the N.-W. edge of Bin Bir Kilisse, clearly separated from the city, is a group of churches, with remains of a monastic establishment, on an elevation which stretches out from the northern end of Maden Dagh. There are faint remains of fortification round the W., N., and E. sides of this elevation: on S. it is merged in and protected by Maden Dagh. We found nothing to prove definitely that this place was occupied before the Byzantine time; but from its situation and character one cannot reasonably doubt that it was a fortified post defending the approach to the old Anatolian Upper City. (Nos. 6, 9, 24.)

(3) There is a small steep isolated hill called Kizil Dagh in the plain, about 12 kilometres N.-W. from Bin Bir Kilisse. It is crowned with a fortress of the early Anatolian period, and a needle of rock high on its N.-W. side is cut into a throne with Hittite inscriptions (Part IV., 2). This place also was apparently

an outlying fort to defend the road to the old Anatolian city.

(4) Various other isolated foundations are described in detail (see Part II.).

The disappointing nature of our discoveries regarding the pre-Roman period in the city was compensated in some degree by finding the old Hittite monuments on the N.-W. Kizil Dagh and on Mahaletch. These are described among the inscriptions in Part IV. They are too isolated and obscure to contribute much at present to historical knowledge, except that they place beyond doubt or question our view that the city was important from a remote time in Anatolian history.[1] But the history of the Black Mountain and its city is a blank until we come down to the Christian period. We can, however, confidently infer from the multitude of churches (especially those on the peaks) that the whole mountain was regarded with veneration as having a sacred character; and we may also regard it as certain that this awe was an inheritance from ancient Anatolian religious feeling.[2] The Christians considered the Black Mountain as holy, because their forefathers for centuries had thought so. What, then, was the origin and cause of this belief?

There seems no room for doubt as to the answer. During many years of study I have relied always on the principle that the pagan religious centres were found in places where the Divine power, which resided specially in the bosom of the earth, the Great Mother of all, was revealed to men by natural phenomena of an impressive kind, such as hot springs, valuable minerals or other mysterious exhibitions of the life and riches

[1] See Part IV., Inscription 1, where it is shown that the same group of symbols appears in all the six Hittite inscriptions. This group stands alone thrice, and must be of special and individual importance. Professor Sayce interprets it as giving the name of a king; I should be inclined to use the term priest-king; but in either case the name proves the wide-spread power of an individual ruler, and Maden-Sheher must be the centre from which his authority extended S. to Mahaletch and N.-W. to Kizil Dagh.

[2] The influence exerted on the Christians of Asia Minor by their heritage of religion, and of prosperity created by industry and science under the guidance of the Mother-Goddess, is described in Luke the Physician and Other Studies in the History of Religion, p. 165.

of the underworld. The sacredness of the Kara Dagh is derived from the great holes that lead down into the depths of the earth, and especially from the two *Maden* in Maden Dagh, where men felt themselves brought close to the Divine nature.[1] The power of the Mother Earth was displayed in making the Black Mountain the sanatorium and the vineyard and orchard of the Lycaonian plain : it was clothed with vines and other fruit trees : it offered a delightful climate in the heat of summer : from its lofty summit men surveyed the whole land and communed with the gods.[2] So we can say in general terms : the details are hid from our search.

The position of the sacred mountain in the minds of the Christians may be illustrated by the growth of religious custom and institutions at Mount Sinai. In the Pilgrimage of the Abbess Aetheria about A.D. 533-540[3] she saw churches on the peaks of Sinai and Horeb. There was no monastery beside the small church on the summit of Sinai, nor did any one permanently reside there ; but there was a presbyter appointed to look after the place, who lived in a cell lower down. There were other presbyters and monks, who lived in cells near the foot of the central mountain, and there was on the outer limits of the mountain a monastery and church (perhaps on the site of the church of St. Catherine, built by Justinian between A.D. 548 and 562, and still standing). The Abbess does not mention any monastery or any guardian of the church on Horeb ; but the analogy of Sinai shows that there probably was, at least, some presbyter charged with the care of the church there, while all the presbyters and monks escorted her to both the sacred peaks, and were apparently associated with both. Such was the state of religious institutions about A.D. 535 : small

[1] The name *maden*, with its suggestion of mineral wealth, was a rude way, such as the Turkish conquerors could attain to, of expressing this older belief in the wealth-giving power manifested in those deep chasms. Compare similar rude Turkish methods of expressing religious ideas quoted in a paper on the Permanence of Religion in Western Asia, republished in Pauline and Other Studies, especially p. 173.

[2] Cities of St. Paul, p. 389.

[3] The account of her travels which she sent to her nuns in Gaul is commonly called Peregrinatio S. Silviae, and is dated about A.D. 388. On the true date and authorship, see Meister in Rhein. Mus., 1909, p. 337 ff.

churches on lofty sacred peaks, a guardian presbyter who lived at a distance, but went up to look after one or both of the churches, a monastery and church beside the base of the mountain. This condition of things on Sinai is similar to what we find in the Kara Dagh, but usage on the latter is more developed. There was a church on the principal peak, with a monastery to shelter the presbyters and monks who maintained the ritual, and a mortuary chapel, perhaps of the founder of the church or of the monastery. There were similar but smaller foundations on many other peaks. There were several monasteries and churches lower down the mountain. These elaborately developed institutions cannot safely be dated in their complete form till later than A.D. 540.

The religious conditions on Mount Sinai shortly before A.D. 400 are described by Nilus, who himself lived as a hermit on the mountain:[1] the summit was inaccessible,[2] and one anchorite dwelt lower down among the rocks, who had avoided human intercourse for fifty years and wore no clothing. A little later Sulpicius Severus says that hermits inhabited the mountain, dwelling in huts or caves distant two or three miles from one another, and meeting only on Sundays, when they assembled at the church: this was probably the church at the foot of Sinai which Aetheria saw about A.D. 535, and which was replaced by Justinian's church a few years later.

About A.D. 400 there were, therefore, no monasteries on Sinai, and no churches on its peaks. That phase of religious observance on the mountain, while later than 400, had been in existence long before 535,[3] and its beginning may be dated roughly about the middle of the fifth century. It seems reasonable to suppose that the ritual of the Black Mountain passed through the same stages about the same times. That is exactly the view which had suggested itself from our examination of

[1] The words of Nilus and of Sulpicius Severus (see next sentence in the text) are quoted by Meister in the article just quoted (Rh. Mus., 1909, p. 347 f.). Sulpicius, a Gaul, quotes the account given by Postumianus, who had seen Sinai and the monasteries of the East.

[2] This, of course, merely means that no one went there ; but it furnishes a complete proof that there was no church on the peak, and that Christian pilgrimages to it had not yet begun.

[3] Meister, *loc. cit.*, p. 347.

the localities and circumstances: hermits in the fourth century,[1] monasteries beginning in the fifth, churches on high peaks in the sixth and later centuries. The analogy of Sinai merely confirms the result of our examination of the buildings.

This inference regarding date is confirmed by positive evidence found in the biography of Hypatius, the first abbot of the Rufinian monastery[2] close to Chalcedon.

In the youth of Hypatius, who was born in Phrygia about 370-380, monasteries were extremely rare, and none existed in his native country, where the clergy were dull of wit and not progressive.[3] About A.D. 400, therefore, monasteries were still far from common, and existed only in the progressive districts. Phrygia was unprogressive; and with Phrygia must be conjoined Lycaonia. Monasteries did not begin to be founded there until the fifth century.

The Thousand and One Churches belong to various periods: the construction of new churches probably continued as late as the eleventh century; but the question as to the time to which the beginning of the existing churches should be assigned is as difficult and obscure as it is important. The stern plainness, the lack of ornament (apart from painting and mosaic, now entirely lost), and the almost entire absence of any trace of the Græco-Roman architectural tradition, either in forms or in mouldings, suggest that there are no early churches, and that there had been a complete break at Maden Sheher with the classical style,[4] which still was living in neighbouring regions during the fourth century.

[1] Hermits may be assumed in the Kara Dagh on the analogy of other places: one lived in the forest of Barata, see final Chapter.

[2] Hypatius is said to have found on the spot an abandoned monastery; Rufinus praefectus praetorio under Theodosius had built a church there of St. Peter and St. Paul, which he called Apostoleion, in A.D. 394 and established a body of monks beside it to maintain the rites. The foundation decayed at his death in 395.

[3] Acta Hypatii, cap. i. in Acta Sanct., 17th June, iv., p. 249: the author was Callinicus, a pupil of Hypatius, and the document gives trustworthy evidence in such a matter as this.

[4] The present writer gave strong expression to this view in the Athenæum, 1905, in a paper reprinted in Studies in the History and Art of the Eastern Provinces, p. 264 f. See preface to the present book.

Against this general presumption, however, we must set at least three considerations. In the first place, we must remember the rude and non-Hellenic character of this rustic city: there is no reason to think that Hellenism ever affected it, or that even the art of the late Roman period exercised any appreciable influence on it. Here Christian art was imposed on a town which was kept almost purely in the old Anatolian stage by its remoteness from Greek and Roman influence.[1] That influence had little power even in districts of Lycaonia which were nearer the Roman centres of life: *e.g.*, on the northern edge of the Isaurian mountains the traces of Græco-Roman art must be regarded as native imitation of works produced in or imported to Iconium,[2] a city near at hand in which Hellenic influence was effective and Roman settlers, Roman officials and Roman names were prevalent for several centuries. The Black Mountain was more remote from Iconium and more isolated than the north skirts of Isauria were, and remained almost untouched by Græco-Roman education and art, because there was neither education nor art in the town during the Roman period.

In the second place, the hard intractable character of the stone was unfavourable to architectural ornament and deep-cut mouldings. There were probably no masons able to work the stone into softer and more graceful ornamentation. A hard, stern simplicity was inexorably imposed on the native artisans, so that the architectural forms of the fourth century were transformed into a dry, rigid and undistinguished style.

In the third place, there is in some respects clear evidence, if my judgment is correct,[3] that there was unbroken continuity

[1] See Part IV., § iii., Sarcophagi, § vi., Sculpture.

[2] Miss Ramsay in Studies in the Art and History of the Eastern Provinces, p. 17. In some cases, where the attempt was made to imitate a definite work of art, the result was rude and unsuccessful. In other cases, where motives and forms of a classical kind (such as the Dorla schema, which seems to me to be derived from third-century church forms, when church architecture was still governed by Græco-Roman artistic ideas, Luke the Physician and Other Studies in the History of Religion, pp. 153, 348) were adopted, they were used by Anatolian hands in a non-Hellenic spirit.

[3] Miss Bell, on whose province I here intrude with rather rash foot, must not be regarded as committed to this opinion, though she regards it as possible.

between the church arrangements of the third and fourth centuries and those of the earlier among the Thousand and One Churches. In the third century the church served as the centre of social life for the Christian community amid a hostile pagan society; generally, therefore, it stood within a space devoted to non-ecclesiastical purposes, and surrounded by an enclosing wall with a gateway.[1] In the space round the church buildings of a different kind might be erected for the convenience of the congregations. In the fourth century, so long as the pagan element in municipalities was strong, this arrangement was still required; but in the latter part of that century, when the domination of the new religion was complete and unquestioned, the arrangement ceased to be necessary, since the whole city was now Christian. Still, the wonted arrangement persisted for a time, and the open space with its buildings were either used as the centre of social life for the whole city (thus tending to place the church in the same relation to the life of the community as the old pagan hieron had been in Anatolian life), or were turned to some ecclesiastical purpose. Miss Bell has observed among the Jacobite churches one way of turning a building to an ecclesiastical purpose.[2] Another way was to employ the space round the church for the abode and convenience of those who were charged with the maintenance of the church ritual: this developed into a sort of monastery attached to the church, and as the monastic system established itself in growing strength, the church was often a mere adjunct to the monastery.[3] But in many cases, when city churches were built in later times, the surrounding space and enclosing wall were disused entirely.

There are at Maden Sheher several churches which retain the original fourth century arrangements more or less com-

[1] Luke the Physician and Other Studies, pp. 153, 348.

[2] See p. 99. She is not committed to my view that the Jacobite usage is secondary.

[3] On the peak of Mahaletch, and in some other places on the Kara Dagh, the monastery was clearly subsidiary and the church primary: the desire was to have a permanent staff charged with the maintenance of the ritual in the church (as in the Apostolion at Chalcedon, see p. 22). Elsewhere, especially in some cases at Deghile, the monastery was primary and the church connected with it was secondary.

pletely and certainly; the clearest example is No. 7, where considerable part of the surrounding wall can be traced, and where a great apse, standing in no direct relation to the church, is a striking feature.[1] Another example is probably No. 1, where, however, only a small part of what was probably the outer enclosure remains on the west. The land round both churches, especially east and north of No. 1, is agriculturally valuable in modern times; and the surrounding walls, which were only slight and devoid of deep foundations, were pulled down to clear the ground.[2] No. 6 is a good example of the class in which the surrounding space was converted to monastic purposes: it stands outside the city. Here also the enclosing walls have been pulled down and the ground cleared for agriculture: only the exterior gate was left standing. Epigraphic evidence shows that Nos. 1 and 6 were early, possibly of the fifth or sixth century; and all three have been restored in a similar style during the ninth or the tenth century, which forms on our view a clear proof that the original structures were older than the Arab conquest (see p. 14).

Even in the Byzantine period, to which almost all our discoveries belong, we have learned little about the actual history of the city, but something about the forces and tendencies which were operating in the social conditions of the central plateau of Asia Minor. We gather a little as to the state of education and the standard of living in a remote country town, not very much superior in circumstances to a rich village. In this respect, however, we are on more slippery ground than those are who have to record definite historical facts, events and the fortunes of individuals. In estimating general tendencies as shown in the circumstances of a city through a long period of history, subjective influences and prejudices are apt to intrude. The following survey must be judged accordingly: it represents the impression made on an individual, comparing the general situa-

[1] Miss Bell found apses in a somewhat similar external relation to Jacobite churches; but this (as above stated) is in my opinion a secondary use (see p. 24).

[2] The only part of the enclosure of No. 1 that remains is protected by its position.

tion of this city with his experience in other parts of Asia Minor and in other periods.

In the first place, the city was not highly educated, and the illiteracy became more marked as the centuries passed. Not merely are the inscriptions few, for that might be due to the substitution of writing on perishable materials, such as paper, for writing on stone. Those which are preserved show a low and progressively degenerating standard of knowledge; and in studying the conditions at Maden Sheher one can understand that Elias, Bishop of Hadrianopolis in Phrygia in A.D. 449, who had to sign by proxy at the Council of Ephesus, because he did not know letters,[1] was not untypical of Byzantine facts in the central plateau. There was found no trace of pre-Christian Greek; for there is no reason to regard 7 as pagan, though it is not demonstrated to be Christian. The probability seems to be that Greek came into use at Maden Sheher only in a Christian form, and that apart from Christianity Greek had never succeeded in producing much effect on the city. This result confirms the general impression which one had gathered from previous study,[2] and is in complete agreement with the view stated and proved by Professor Holl in Hermes, 1908, p. 240 ff. The two earliest Greek inscriptions of Maden Sheher are 7 and 8, on sarcophagi: one shows the writer's utter inability to express himself intelligibly in Greek, which must have been a foreign tongue to him; the other is plainly Christian, and seems composed in the stilted style of one to whom Greek was the language of education, not of home-life. These are spelt fairly correctly. The only long inscription is No. 52, composed by a presbyter who had some education and knew Greek quite well, but the spelling is barbarous in the extreme:

[1] Mansi, Acta Concil., vi., p. 929 (quoted in Histor. Geogr. of As. Min., p. 92).

[2] In Zft. f. vgl. Sprachforsch., N.F., viii., 1887, p. 393, I stated that a site in Eastern Phrygia on the border of the Axylon, "was equally ignorant of Greek and of Christianity. The diffusion of Christianity was probably a strong agent in spreading the use of the Greek language." This opinion has been only confirmed throughout subsequent study, and has often been repeated more positively in later writings.

the presbyter spoke Greek, but was not given to reading or writing in it. The other texts are short, and almost all, especially those that are obviously of very late date, show a narrow and degenerating range of education.

In the second place, the Church became steadily more powerful over the life of the people; and the condition of society reverted to the primitive Anatolian system, where the god of the local *hieron* was the ruler and master of a population of his servants. The Byzantine age inherited an older technical skill. The contrast between the bare and barren hill-sides in modern time and their rich, highly cultivated condition in ancient time is an essential fact in the right understanding of the old city. The district has in a large degree gone back to its original condition, though showing plentiful traces of the improved state in which it was for centuries and even for thousands of years. How was this improvement of natural conditions originally effected? The remarkable thing is not merely that so much labour had to be expended on the improving of the soil: far more impressive is it to think of the wisdom, the forethought, the sacrificing of the present to the future, the accumulated experience and knowledge, which lie behind the process. How was the engineering skill gained, which stored up for use in the dry season every drop of water that fell in the rainy season? There is still the same amount of water, but it runs off the slopes as quickly as it falls, and is of very small service to the soil or to man. The people who still inhabit the town[1] are moderately industrious. What they want is knowledge, and not willingness to work. They have not the knowledge, or skill or forethought, or power of adapting means to ends, which

[1] The people of the town of Maden Sheher call themselves Osmanli, not Turkmen or Yuruk; but I was assured by outsiders that the population was mixed of several stocks. Those of Deghile are Yuruk, settled in recent years and no longer nomadic. On the distinction between the Turkmens, Yuruks, etc., on the one hand, who are all nomads of Central Asiatic stock, and Turks on the other hand, who are practically the ancient population with an admixture of the Turkish conquering element, which has been merged in the former population, see almost any traveller, *e.g.*, Impressions of Turkey, pp. 96-109. Turkmens and other nomads are as old as the Turkish conquest of the land; but some tribes are later immigrants.

would give them more food and better water to drink. The fruit trees in ancient times were the result of careful cultivation and much care; but the art of tending them is lost. It takes a long time to produce a good orchard, and requires a people who can work for a distant future, and who can count on security of property and peace to enjoy the fruits of labour in the distant future. This implies settled government, order, and the reign of law. Those conditions are all wanting now, for the whole fabric of society has deteriorated.

But the question has still to be answered, how it was that such forethought and knowledge were applied in ancient times. The reason seems not to have lain in any high standard of education in this Lycaonian city. We have found no reason to think that the people were ever anything but rustics. It was not through the high education of the individual that those great results in engineering and agriculture and the use of the earth generally were gained. It was through the guiding power of their religion. The Goddess herself, the Mother Earth, taught her children; as she gave them birth and life and nourishment, so she showed them how to use the things that she tendered to the use of man. The religion was agricultural and economic; and its rules and practices were the annual cycle of events in the industrial year.

In this way that ancient religion acquired an extraordinarily strong hold on the simple minds of a little-educated population. In their religion lay their sole education; but it prescribed to them all the wisdom and the conduct that they needed for a prosperous agricultural life.[1] The hold which it possessed on their minds lasted through the centuries that followed, when new rulers and strange religions became dominant in the land. The old holy places, perhaps also the old religious customs to some extent, imposed themselves on the Christians of the Byzantine time; and it is not easy to see any great or deep difference between the numerous Byzantine saints and the Divine figures who surrounded the principal deity in the early religion. The only saints whose worship in Byzantine times is

[1] This subject is treated in more detail in Hastings' Dictionary of the Bible, v., pp. 109 ff.

proved epigraphically on the Kara Dagh are Conon, the Isaurian saint, Michael, the commander of the heavenly hosts, whose worship was naturally associated with the resistance to the Arabs, George, who is seen in a wall-painting in No. 4, and Gaianus (see inscr. 4).

It would almost appear that, if our restoration of the important but mutilated inscription 9 is correct, the priest-dynasts of the pagan period, who were so characteristic of Asia Minor, had their analogue in Byzantine times; and that the presbyter of a leading monastery was also *ex officio* the chief officer of the city. This would be a not unnatural development of the primitive custom, which can be traced in successive stages under Greek kings and Roman emperors. M. Henri Grégoire[1] has pointed out that the Strategos of Cataonia (under the kings and the procurators of the early Province) was priest of the Great Goddess of Comana; and I have argued that the procurator of the Imperial estates near Pisidian Antioch was *ex officio* priest of the local goddess Artemis.[2]

The Church seems to have directed the popular resistance to the Arabs, so far as the people made any independent effort at defence (Part IV., 9, 13). There was a church at a critical corner of the fortifications of the city, and others occupied many of the high points that controlled the lines of its defence. Churches were the form in which public spirit expressed itself in Byzantine times. Religion was the life of the nation, so far as it still retained life and unity. The church buildings reflected the fortunes and sufferings of the people.[3] They were constructed usually as the payment of a vow in some crisis or danger; and the formula quickly established itself "through the vow of so-and-so, such-and-such was erected,"[4] of which

[1] Comptes Rendus de l'Acad. des Inscr., 1908, p. 444 f. The government of a Province under procurators (like Cappadocia in the first century) followed the old monarchical lines: the emperor took the place of the king, and ruled as absolute sovereign.

[2] Studies in the History and Art of the Eastern Provinces, pp. 313, 345.

[3] Luke the Physician and Other Studies, p. 155 f.

[4] εὐχῇ with the genitive of a personal name. This formula is generally printed by modern editors with εὐχή as a nominative, as if the structure were the vow. This obscures the true meaning.

frequently all was omitted except the opening words, while the building or ecclesiastical construction on which the two Greek words were engraved expressed the rest. This custom gradually assumed the form that each church preserved the memory of the dead, in which form it passes into the following class of religious and social facts.

In the third place, the close connection between religion and the respect paid to the dead became an important fact in the life of the people. The churches came to be regarded more and more as memorials to the dead. It is unnecessary to repeat here the reasons which show that on the plateau of Asia Minor religious awe was in older times associated with the veneration of the dead.[1] A grave was a temple: the dead man was identified with and merged in the Divine nature. Even at the present day, there is the grave of a Mohammedan saint at almost every place to which ancient religious awe clings; and few will doubt that the modern custom merely preserves the ancient religious usage. In this respect also the later Byzantine period shows a reversion to the normal Anatolian type. The inscriptions contain the evidence and show the facts (see Part IV.).

Apart from the church architecture, there is little to say in favour of this provincial Byzantine town. Monasteries multiplied: they abound all over the mountain. The people seem to have been wholly dominated by ecclesiastic interests. Much of the land must have passed into the possession of the monasteries, and so been withdrawn from the service of the state. Patriotism could not survive in such an atmosphere; and there is no reason to think that the Imperial government either tried or deserved to rouse a national and loyal spirit, for it was becoming steadily more oriental, more despotic and more rigid. But the major part of the blame for the national decay must be laid on the Orthodox Church. The nation had been delivered over to its care. It had been supreme and its authority unquestioned, after the Iconoclasts had been put down. The result was that art and learning and education were dead,

[1] Studies in the History and Art of the Eastern Provinces, pp. 272-79 (also Index, *s.v.* Phrygian Religion, p. 389; Pauline and Other Studies, p. 171 f.; Luke the Physician and Other Studies, pp. 140, 173 f.

and the monasteries were left. The Orthodox Church had allied itself with autocracy against the people, and with the superstitious mob against the heretics and the thinkers. Its triumph meant the ruin of the nation and the degradation of higher morality and intellect and Christianity and art. In our excavations, never deep, we did not find any article worth picking up.

But a high standard of material comfort still reigned in the mountain. The delightful air could not be ruined. The water supply, bountifully provided in early time, was cared for and maintained in good order. The vines grew generously on the volcanic soil of the hill-sides. Whatever else failed, the wine-presses, which we found in numbers, were still trodden,[1] the harvests were still reaped, and the fruit still gathered from the trees. The life of the Kara Dagh (except during the raids of the Arabs and other eastern barbarians) was one apparently of rustic quiet and ease, under the guidance of the Church, remote from the world of politics, in the home of ignorance and dulness; and the Black Mountain might have served Pope better than Italy as a model in the concluding lines of the Dunciad. As one sees everywhere that almost the sole remains of the Byzantine times are monasteries, churches, and graves, with wine-presses (which are very numerous), cisterns and other apparatus for husbandry, one is impelled to ask whether the inhabitants were not all monks or church officials; and whether the houses with the cross over many of the doorways were not simply the homes of ecclesiastics, deacons, presbyters and the like.

Degeneration has played havoc with the prosperity and productiveness of the Kara Dagh; and the population, decaying to the measure of the food supply, has dwindled to a remnant. At Maden Sheher there are thirty families, at Yaz-Tepe about twenty, and at Deghile less than ten. The other tiny settlements on the mountain are only yaila, summer residences, for the people of these villages or of Mandassun (a village in the plain south-west of the Kara Dagh).[2] The population is kept

[1] Strictly speaking, the presses were crushed down by lever power.

[2] It is a railway station 80 kilometres from Konia. There is also a rather larger village, Kilbassan, under the extreme southern end of Kara Dagh, in a wilderness of bare soil. Is the name Kelb Hassan (Dog Hassan) or Kolbassan an ancient name (like Mandassun)?

down to the lowest limits by scarcity of water, alike for drinking and for agriculture. The remains, however, show that in ancient times there was much agriculture and horticulture, with a large population, on the mountain. The water supply, therefore, must have been very much more plentiful in ancient times.

The same reflection occurs to the traveller in every part of Lycaonia. He can trace in the dry plain ruined engineering works which formerly brought water; usually they are subterranean or otherwise inconspicuous, so that only careful exploration or chance excavation detects them. For example, at a small yaila called Bakalak, north of Boz Dagh in the plain, sections of a terra-cotta waterway, two feet long and semicircular in section, were offered us for sale; and we learned that these were dug in numbers out of a gently sloping hill, close to the houses, but many miles distant from any known source or spring. Again, about a mile south of the railway, half-way between Ilghin and Kadin Khan, is a great curved dam crossing a deep depression in the plain, some miles north of the hills behind Laodiceia Katakekaumene; it is more than a quarter of a mile long, fully fifty feet high in the deepest part, and still in perfect condition; but now it holds no water, for no water flows from the hills. The director in charge of the irrigation works for the plain of Konia[1] told me that they found clear proof of the existence of streams watering the plain which now are quite dry. Cities of considerable importance, not to mention numberless villages, were dotted over the plain, where now only the scantiest population can dwell; wells may perhaps have supplied the water, for there is abundant water under the plain, often at no great depth; but the remarkable fact is that few such wells are found, and it would seem that other methods of supply were used concurrently. Strabo speaks of the scarcity of water in the Lycaonian plain, and mentions the very deep wells by which it was obtained;[2] but his evidence must be estimated by com-

[1] The water is to be brought from Bey Sheher Lake, a distance of over 200 kilometres. The channel was open in ancient times, but through neglect has become choked for a space of about eighteen miles. See note, p. 4.

[2] Strabo, p. 568, mentions Soatra (*i.e.* Savatra) as a place where the wells were very deep. This site was uninhabited except as a yaila until a few

parison with his ordinary experience in Græco-Asiatic cities, where water flowed in luxurious abundance, in a country where running streams were numerous. The Lycaonian plain seemed therefore to him waterless; and on the north side of Boz Dagh, along which he had travelled, that was always the case. He mentions that at Savatra water was sold, apparently a unique fact in his experience even in Lycaonia. In all other cities this necessary of life was supplied free to all.

It is therefore an ascertained fact that much more water was available in ancient times than at the present day in Lycaonia; but still even at the best the country was dry, and it was necessary to store it carefully and distribute it economically for agricultural purposes. Water-engineering was practised on a great scale, and the Kara Dagh is the only place in the country where the ancient methods of storage can be observed. To study the subject properly much time and care would be needed, and a map on a large scale would have to be made; but even our inadequate observations are enough to show how much care and skill was expended in this work. Much rain falls on the Kara Dagh in spring and early summer, but it runs off the steep bare hills as quickly as it falls, and does little good. Sometimes a very heavy rainstorm does serious harm. In April, 1909, a flood rushed down the west side of the plain in which Bin Bir Kilisse is situated, covering with gravel many fertile fields and ruining the standing crops. In ancient times much of this water was caught and stored by means of terraces and cisterns.

1. The terraces can be most easily seen on the west side of the Lower City, where the slope is gentle; where the slopes are steeper the terraces have been swept away almost completely. A series of low ridges, running E. and W. across the course of a very slight water-course,[1] forms a set of fields, each a little higher than the next on the north. Each ridge held up a certain amount of water and the soil which it carried in solution, and

years ago, when a small colony of refugees from the Crimea was established there. Their wells are not deep.

[1] It is not the principal water-course on the west side of the valley (which drains a considerable tract of higher land near Yaz Tepe and the Upper City), but a little one nearer the Lower City, which drains only a very small extent.

thus the fields were formed. Again, about 200 yards N.-W. from church No. 7, an elongated elevation tempted me to hope that it might conceal some ancient building; but two trenches which were made across it showed that it was merely a dam to hold up the rain-water as it ran down towards the north. Works of this kind were widely applied to extend the area of cultivation.

2. Cisterns are numerous. Some of those in the Lower City are still used, and the people drink the poisonous water, which lies in them under a greenish scum. Strangers must either use it and take the almost inevitable consequences in disease, or send to fetch good water from one of the springs on the mountain, about one hour and a half distant. In ancient times the cisterns were probably cleaner, and the water was perhaps not used for drinking purposes. The best preserved of these cisterns is on the N.-W. side of the Lower City, a hundred yards N. of church No. 29. It is 55 ft. 6 in. long, and 16 ft. 10 in. broad. The height of the perpendicular walls is 22 ft.; and the semi-circular arch of the roof, 8 ft. 5 in. in radius, rests on them. This arch is of remarkable construction: it is strengthened by two horse-shoed girders, which rest on the fourteenth course of the walls, and recede from the line of the fifteenth course. The sixteenth course projects a little inwards, and the two girders recede still more from its front. On the sixteenth course rests the arch, which is built in seven courses of stone on each side, while the middle of the arch is of concrete: the two girders are built of stone throughout. There is a row of holes, about 1 ft. 9 in. square, in the second highest course of the arched roof; these holes correspond to one another on the two sides of the roof, and seem to have been intended to hold cross-beams. The axis of this cistern is nearly due S. to N., which is the direction of the flow of the water. In the N. wall, close to the highest point of the arch, a stone spout passes through a hole and projects on both sides. It was apparently intended to collect surface water and conduct it into the cistern.[1] There seems to have

[1] The door in this N. wall (described in the sequel), proves that the spout was not required simply to prevent the cistern from being overfilled with water. The water escaped, as soon as it reached the level of the door.

been no corresponding spout in the S. wall; and this is strange, because an aqueduct flows from S. past the E. wall, and a branch is taken off from it at right angles opposite the outer edge of the S. wall, and one would expect that this branch served to fill the cistern through such a spout. The communication has, however, been destroyed. This aqueduct must have been brought from a long distance on the south, but its source is unknown. It is below the surface of the soil, but at the cistern it approaches so near the surface that we observed a slight inequality and easily disclosed the aqueduct with a shovel. How far N. it runs beyond the cistern we did not determine. In the N. wall of the cistern, close to the W. side, is a door, approached by a flight of steps from N.; the steps continue inside along the W. wall down to the level of the floor. The entire construction is under the level of the soil, but the top of the roof just reaches the surface. The natives had uncovered part of the N. wall, and we uncovered part of the S. wall. There are two square holes in the roof; one about 25 ft. from the N. end, and about 22 ft. from the second hole. Through these the water was drawn; they are now uncovered, but in ancient time they doubtless were closed by stone lids.

The N. porch of church No. 1 is of similar construction to this cistern, it has a semi-circular arched roof resting on the straight walls, and the centre of the roof is of concrete, while the lower part of the arch and the walls are of stone. The porch, being small, has no girders.[1] The similarity in construction showed that the cistern belongs to the Byzantine age.

The most remarkable and obscure in purpose of all the cisterns is situated in a narrow deep water-course that runs S.-E. below the village of Yaz Tepe. It is about 30 ft. long by 15 or more in breadth. The length is in the direction of the water-course. There is an arched door in the upper end wall approached by a short passage, and at the lower end there is another door, which is now buried so deep that only the top appears. I could not see what purpose was served by this cistern, which is much below the level of the soil on each side

[1] The nave was roofed like the cistern with girders.

of the water-course: the doors show that it was not a mere holder of water.

3. An aqueduct passes down northwards in front of the west door of church No. 3 and the west wall of the mediæval fort, but has long ceased to carry any water. It is made of tiles embedded in concrete; and at the place where it was disclosed, it was only a few inches below the surface of the path. The situation and direction show that it brought water from the abundant sources under the E. side of Mahaletch, at the head of the gorge which opens behind Maden Sheher, to supply the city. It was doubtless this aqueduct, perhaps in conjunction with another, that furnished drinking water for the people, while the cistern-water was used for other purposes.

The construction and maintenance of these numerous works required a great deal of hard labour, directed by knowledge and method. It may be safely assumed that the works were in great part constructed in the early Anatolian time, for they are necessary as a basis for the well-being and for the very existence of the city. Nature did not give the benefits of the Kara Dagh to men without much toil and much application of skill and forethought; and the plan of construction and of maintenance was originally doubtless under religious sanction.

The fortunes of the city under the Turkish domination, which began in 1072, can be traced with a clearness that is rare on the plateau. For at least a century a Greek-speaking and Greek-writing population survived (Part IV., inscr. 30). The Moslems occupied the Upper City. The Christians built a fort in the Lower City, making church No. 3 its S.-W. angle, as the fortifications of Deghile rested on No. 31. In each case the W. door, a cause of weakness, proves that the church was built before the fortification was thought of.[1] Thus the two factions dwelt side by side, probably not actually at war with one another, as all were subjects of the Seljuk rule, but in a state of uneasy peace, when quarrels might arise at any time, and fortifications were needed. The Upper City was guarded sufficiently

[1] That the fortress was not Moslem, is proved by the absence of a mosque and the presence of a church.

by its natural strength and its old ruined walls. All its churches were turned to Turkish uses, No. 15 being made the mosque.[1] A similar situation existed at Smyrna in the fourteenth century; the castle on Pagos was held by the Turks, while the Christians occupied the Lower Town and the Castle of St. Peter on the port. In many parts of Phrygia, after a similar fashion, Turks and Christians occupied different parts of an ancient city, making it into two villages: *e.g.*, Sivasli and Seljukler on the ancient Sebaste.[2]

The Turks had not sufficient social coherence, or forethought, or education, to maintain those works for conserving and supplying water which formed the basis to support civilised life in the Kara Dagh. The tradition was lost, except so long as the Christian population continued. To the present day any water work in a Turkish village is built and regulated by Greek workmen (or, on a larger scale in cities, by European skill). In the Upper Town there is a Turkish fountain, now dry. A broken aqueduct once filled a receptacle cut out of an oblong block of native stone. From the lower corner of the reservoir the water ran out into a small open trough for animals to drink. The rudeness of the whole arrangement may be taken as proof that these two receptacles are Turkish, but the aqueduct is certainly older.

We have no evidence of the nature and rate of the process whereby the Christian population died out in the Black Mountain. The nature of the process admits no record; a dying civilisation does not register the last steps of its dissolution; the Christians probably ceased to write or read before they ceased to live or to be Christians. Did they die out naturally? were they killed out? did they emigrate? or did they become Moslem? The last alternative may be set aside, for the mountain became almost totally depopulated. The other three causes perhaps all acted in varying degrees. No regular massacre, indeed, is likely to have occurred; the Seljuk rule was

[1] The W. wall was built after 1170 (inscr. 30); the mosque was older.

[2] Cities and Bish. of Phr., i., pp. 27, 302; ii., p. 581: compare *κώμης Ἀραβῶν τοῦ Ἀρσινοΐτου νομοῦ*, implying a village of Arabs apart from the Christians, Berlin Urkunden, ii., 367 (which Wilcken dates in the Arab period).

mild, and was sometimes preferred by the Christians to the harsher Byzantine system;[1] but the fortress at No. 3 implies fear and dislike and disputes, in which the Christians would inevitably suffer most. The decay of intercourse across country, owing to the destruction of the roads and the insecurity of travelling, isolated the Black Mountain and contributed to the deterioration of social conditions.[2] The progress of degeneration may be imagined; the result is seen in the desolation that now reigns around the Thousand and One Churches.

[1] Historical Geogr. of As. M., p. 389.

[2] Compare Luke the Physician and Other Studies, p. 182 ff.

PART II

THE BUILDINGS

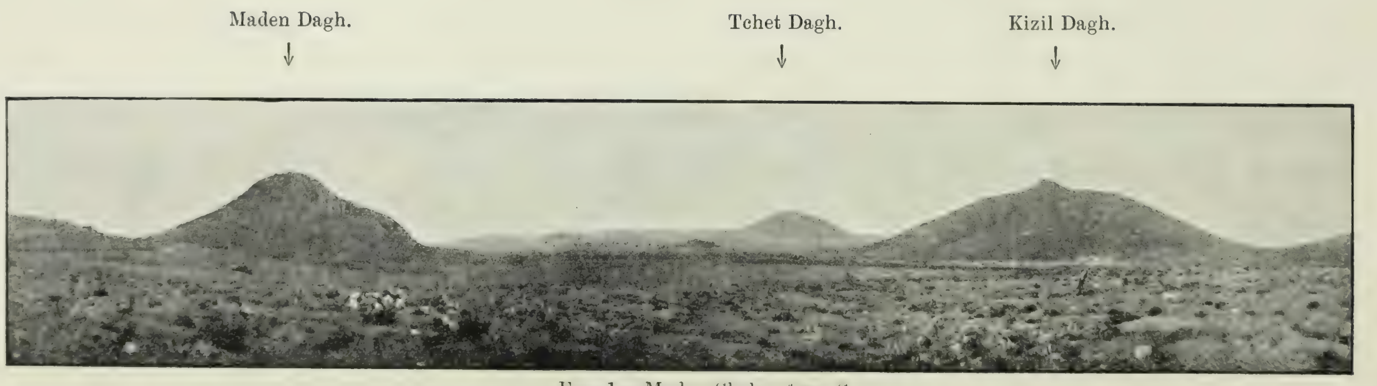


Fig. 1.—Maden Sheher from S.

PART II

THE BUILDINGS

(Maps: Maden Sheher, p. 2: Deghile, p. 296.)

No. 1

Strzygowski, Kleinasien: A plan and photographs by Crowfoot, and additional notes by Smirnov.
Holtzmann, Binbirklisse: A plan, elevation and details. His plan is much less correct than Crowfoot's.[1]

No. 1 is the largest church in the Kara Dagh (Fig. 2). It is a true basilica, the nave being raised above the aisles and lighted by round-headed windows pierced in the upper walls, five on either side (Fig. 3).

The narthex is entered by a double arched doorway, the arches being supported by a central double column. These arches are not horse-shoed. The outer ends spring from a moulding built into the wall in imitation of the capital of an engaged column, a practice universal in Central Anatolia (Fig. 4). A string-course runs across the width of the façade below a pair of arched windows, from which the central column has fallen. On five stones immediately below the string-course there are traces of a projecting ornament, which has been broken off; the middle stone of the five is centred to the windows. To the N. of the window the third and fifth courses of stones above the string-course are composed of small oblong blocks, each alternate stone being of a reddish colour. This decoration is not continued along the wall to the S. of the window, but its regularity on the N. side proves that it was intentional. The narthex seems to have been only two storeys high—as will

[1] I give the references to Holtzmann, but am compelled to state that I have found both his plans and his sections of mouldings to be so incorrect as to be thoroughly untrustworthy.

be seen, the narthex of No. 7 was three storeys high.[1] Neither here nor in any other church have I observed the remains of the staircase leading to the upper storeys of the narthex. The means of ascent must have been supplied in all cases by a light wooden stair or ladder. This was the system adopted in most Anatolian churches; compare, for instance, the Koimesis at Nicaea.[2] The ground floor is divided into three chambers.[3] The W. wall of the central chamber is broken by the double doorway, the E. wall by a single arched doorway opening into the nave, the arch slightly horse-shoed. Neither the W. doorway nor the entrance to the nave have been fitted with doors. The two side chambers could be entered only from the aisle. The nave and aisle had been restored during the Christian period. (Though the S. aisle has fallen a few of the columns and piers still stand at the W. end, showing that the restoration was the same in both aisles.) The original vaulting of the aisles must have fallen completely, and I think it probable that the vault of the nave fell at least in part. The original nave was divided from the aisles by nine small double columns and two engaged piers bearing ten horse-shoed arches. Above these arches the straight wall was carried up to the level of the lower ends of the window arches, where the gradual curve of the vault began. The vault, like the walls, was composed of small roughly dressed stones. It was not horse-shoed but was strengthened by four horse-shoed ribbing arches springing from the wall at a point a little below the window sills. When this

[1] Sir W. Ramsay gives me the following note with regard to this narthex. All three chambers on the ground floor are roofed with barrel vaults running N. and S. Second floor: all roofed with similar barrel vaults. The chambers are divided by wide, open arches reaching nearly, but not quite, to the roof. I have re-examined the church (1909) and have nothing to add to his description.

[2] Wulff: *Die Koimesiskirche*, p. 30.

[3] Holtzmann has tried to assimilate this and other façades with the façades of Syrian churches by restoring the narthex with corner towers rising above a central gable. I see no reason to suppose that this reconstruction is correct and De Laborde in his drawings of the façades of Nos. 7 and 14, which were apparently almost perfect in his day, shows no sign of it.

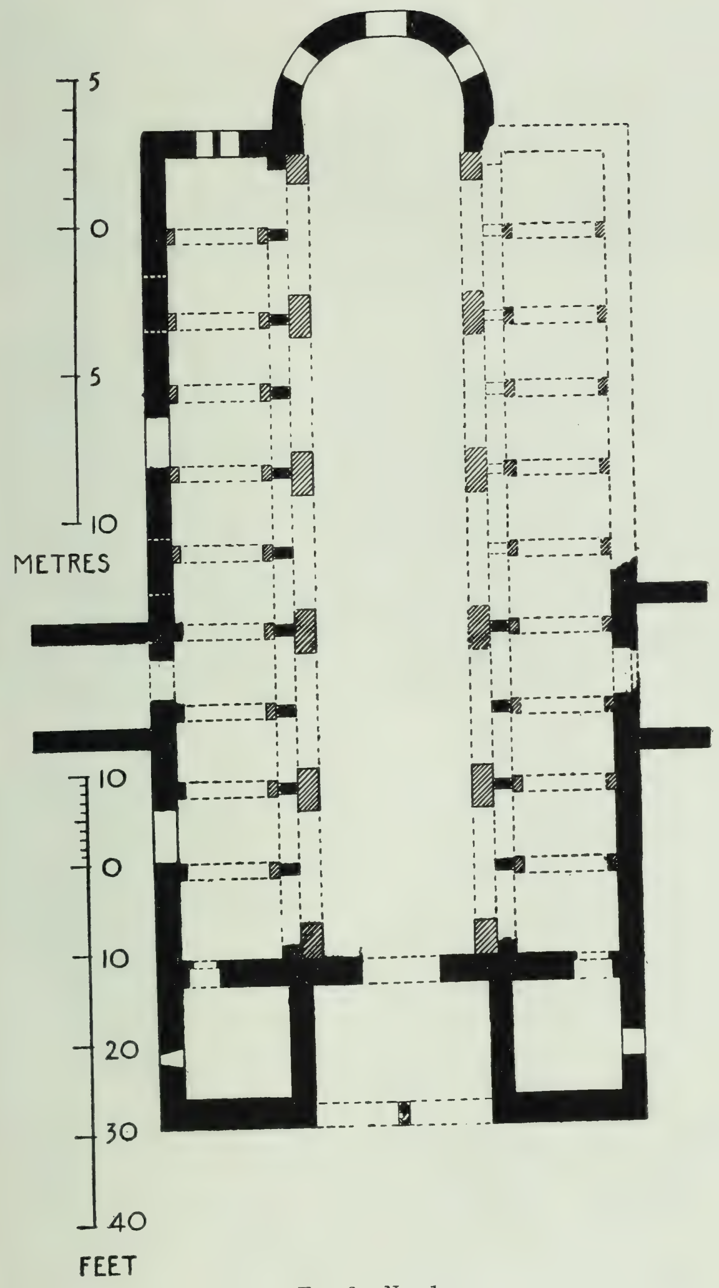


Fig. 2.—No. 1.

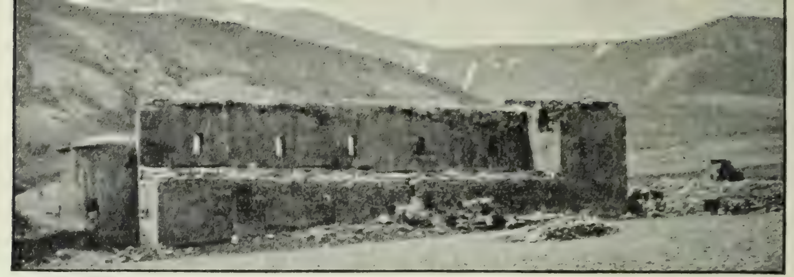


Fig. 3.—No. 1 from N.-E.

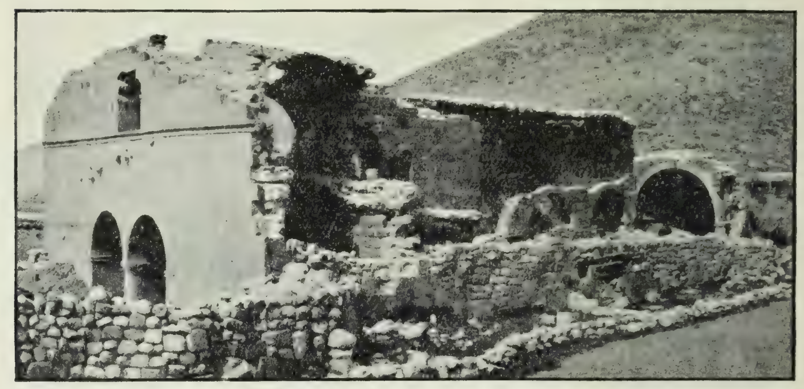


Fig. 4.—No. 1 from S.-W.



Fig. 5.—No. 1, W. end of nave.

vault showed signs of falling, or actually fell, a new vault was built within the space that the first had occupied ; the second vault was therefore both narrower and lower than the first. It was supported by four large masonry piers, and two engaged piers carrying five arches, not horse-shoed, each of which spanned two arches of the original arcade. The second, like the first vault, was built of dressed stones. A small portion of it still stands at the W. end of the nave ; it blocks the N.-W. window—probably all the upper windows lighting the nave were blocked by the restoration (Fig. 5). In the same figure can be seen the beginning of an outer vault made of concrete and rubble. This is, I believe, a part of the original vault, the upper portion of which, *i.e.*, where centering was used, was not composed of dressed stones. It is however impossible to determine how much or how little of the first vault stood when the second was built. The masonry of the four later piers, and the wall above them, is extremely poor ; bits of moulding are built into it—there is one fragment which corresponds to a string-course found on the earlier parts of the church and may have belonged to it, but the other pieces are of a much ruder character (Fig. 6 *d*). I believe that the aisles were originally roofed with barrel vaults running parallel to the vault of the nave ; this is the universal practice in Maden Sheher, except in churches that have been repaired. At the restoration, nine small stone piers were placed against the nine double columns, and nine corresponding engaged piers against the wall of the aisle. These carried horse-shoed arches spanning the aisle (Fig. 7). Between the transverse arches are barrel vaults of rubble and plaster, without a facing of dressed stones, slightly raised at the inner end and sloping down towards the outer walls. The system can be illustrated better in No. 6, the downward slope is however not quite so marked in No. 1. The length of the aisle was thus broken into ten bays, not strictly regular owing to the irregularity of the spaces between the original double columns. The engaged piers against the N. wall (it must be remembered that the S. wall has fallen) partly blocked two of the four window openings. Each of these openings must have been divided by a double column into two arched windows ; such is the arrangement still to be seen in

a fifth opening at the E. end of the aisle. There was a door in the N. and another in the S. aisle, both showing traces of a porch; the porch on the N. side was deeper than that on the S. The S. porch is completely destroyed and only the foundation can be traced. The N. porch is in good preservation: the side walls are complete and half of the vault is standing. This vault appears to be, so far as can be judged by eye, semicircular. Its sides were built of regular courses of small squared stones, while the upper part was of concrete. There are no ribbing arches, but in other respects the analogy to the original vault of the nave is remarkable.

The opening of the apse is slightly diminished by the engaged piers of the restoration (Fig. 8). The floor of the apse is of whitish concrete which may have held mosaic, but no traces of mosaic are left. The keystone of the horse-shoed arch over the apse is of the same red stone that decorates the N. side of the façade. The apse is in ground plan stilted and slightly horse-shoed. It is lighted by three large round-headed windows (Fig. 9).

The masonry is exceptionally good. Here as elsewhere only the outer and inner faces of the walls are built of dressed stones, which are almost invariably wedge-shaped, the wedge running back into the rubble and mortar that forms the core of the wall. This system gives a special feature to all the masonry; no mortar is apparent on the faces of the walls, the outer edge of the wedge-shaped stones fitting closely together. The mortar used with the rubble is poor stuff, crumbling away easily. In No. 1 the facing stones of the outer walls are finely dressed and fitted, and the courses are unusually regular. The masonry of the interior, though of the same character, is far less accurate. Probably all the interior of the church was plastered and frescoed, and this applies to every church in the Kara Dagh. Traces of fresco can be seen in the narthex and under the arches of the original arcade between the nave and N. aisle. Here indeed the fresco is often well preserved. In the centre of each arch there is a cross of peculiar form (Fig. 6 *e*), within a medallion; on either side, on the lower parts of the arch, is the bust of a saint. Some of the heads are surrounded by halos, and some, presum-

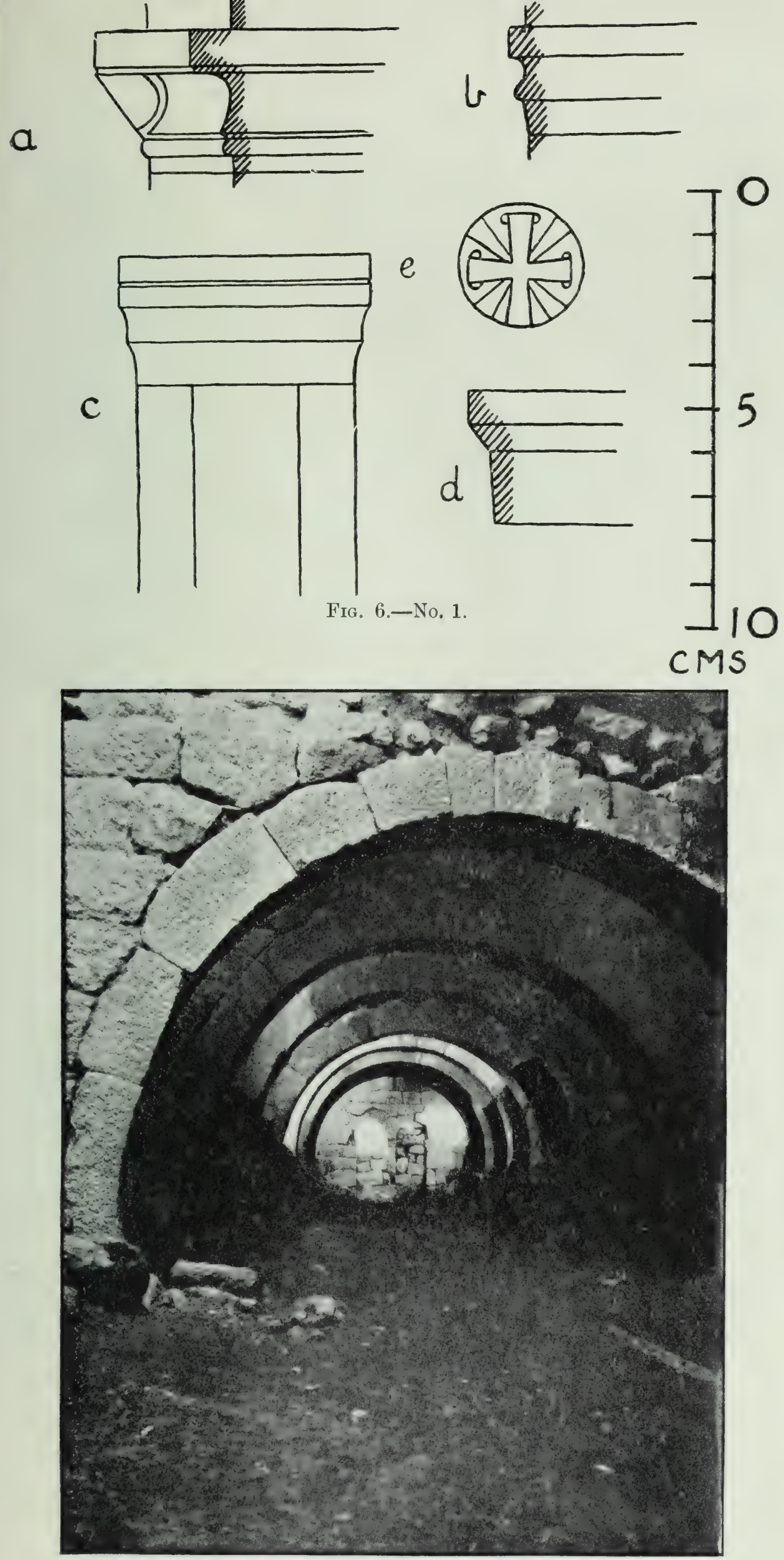


Fig. 6.—No. 1.

Fig. 7.—No. 1, N. aisle looking E.



Fig. 8.—No. 1, apse.



Fig. 9.—No. 1, outside of apse.

ably those of women, are encircled by folds of drapery. The string-course (Fig. 6 *a*) that runs across the W. wall of the narthex is bold and well cut; it consists of a filleted band, a filleted cavetto, a roundel, and a narrow band. It is not carried round the N. and S. walls, but ends with a characteristic filling of the cavetto which simplifies the profile of the corner. The moulding on either side of the W. door is repeated round the interior of the apse above the windows (Fig. 6 *b*). It is composed of a plain band and a cyma, the curve being an upright **S**-shape. The capital of the double column in the narthex door is singularly clumsy (Fig. 10). It consists of two bands, the lower one sloping outwards to meet the upper which overlaps it and slopes inwards towards the overlapping abacus. The lower band is in section oval to match the oval section of the column, the intermediate band oblong with rounded corners, the abacus oblong and rectangular. The same members, placed in the reversed order, form the base. The capitals of the double columns of the original arcade between nave and aisles resemble moulded impost blocks (Fig. 6 *c*). They consist of a notched band and two cavettos. Round the exterior of the apse below the windows is a plain band of stone, projecting slightly from the face of the wall. The lintel of the N. door is similar to that of the N. door of No. 4 (Fig. 22 *e*) and the N. door of No. 6. The S. door closely resembles the S. door of No. 6. The moulding of the lintels is not continuous with that of the jambs, but ends abruptly above the interior line of the jamb, leaving an unworked piece of stone where the corner should be. The explanation in both cases is probably the same; the lintels and jambs were partly worked before they were set up, the intention having been to work in the corners when the stones were in place, but this was never done.

Smirnov mentions a chapel with an apse on the S. side of the church. It is no longer visible, the ground on this side having been turned into a vegetable garden and all the stones cleared off it. A few metres to the W. of the church are the ruins of a wall containing two doorways; perhaps the whole church was enclosed by a wall.

There are in Maden Sheher three other basilicas which show traces of extensive reparation similar to that which is to

be seen in No. 1. We suggest in explanation of this fact that all four churches were ruined during the Arab invasions of the eighth century, and repaired, somewhat hastily, when the Christian population found itself once more in secure possession of the town. The four churches, Nos. 1, 6, 7, and 21, must therefore have been in existence before the eighth century.

No. 2

In the village, but not inside the enclosure of the fort, there is a church which is now used as a mosque. The apse has been entirely destroyed, but the line of the foundations can still be made out. Parts of the narthex remain; the arcades between nave and aisles have been cleared away, and the rectangular chamber thus formed is now covered with a flat roof. Inside the building are some interesting fragments of carved stone. Two which I could not photograph were built into the wall and floor; the decoration consisted of a series of small arcades. Three other pieces were standing by the mihrab (Figs. 11 and 12). The first was a long block carved on two sides. One side was divided into three rectangular fields and the remainder of a fourth, each filled with an elaborate motive of interlaced circles and diamonds in alternate fields. In the centre of every diamond and circle was an eight-pointed star or anthemion. The decoration terminated in a narrow field occupied by a doubly inscribed arch within which was an upright palmette. On the other side of this stone were two rectangular decorated spaces separated by a blank space. So little remained of one of the strips of ornament that no more can be said of it than that it consisted of double interlacing lines; the other oblong strip contained a rhomboid inscribed with looped lines, in the centre a circle of small dots and within it an anthemion of eight petals, each having a central vein, finished in the middle with a drill hole. Outside the rhomboid the rectangular field was filled up with palmette-shaped leaves not unlike the Persian cypress motive. The other block was decorated in a similar manner. The small square fields were separated from one another by a broad band, rectangular at the corners and looped in the centre; within these was a four-pointed blossom, and



Fig. 10.—No. 1, capital in narthex.



Fig. 11.—Carved stones in No. 2.



Fig. 12.—Carved stones in No. 2.

two rayed circles. On the other side the rhomboid appeared again, while the corners of the oblong space were filled in with snaky lines. The third block was decorated on one side only with doubly-inscribed, interwoven circles and diamonds, the circles being looped together.

No. 2 has now been completely destroyed, and a school has been built out of the stones. One of the carved blocks has been placed over the door (1909).

No. 3

Kleinasien : A brief note by Crowfoot, and further notes with a plan by Smirnov.
Holtzmann : A plan and details.

This church is more ruined than it was when Smirnov saw it (Fig. 13). Nothing remains of the façade, though fragments of inner walls still indicate the second storey of the narthex. The arcades of the nave, which were standing in part in Smirnov's time (he mentions that the arches were horse-shoed), and much more completely when Sir W. Ramsay first visited the Kara Dagh, have now disappeared; a few of the double columns remain, but they are almost buried in the earth of the vegetable garden which occupies the interior of the church. They are not so slender as Strzygowski states, from Smirnov's notes. Their size (0·37 m. × 0·58 m.) is not unusually small for the columns of a short arcade. I republish Smirnov's plan with some trifling corrections. The N. end of the narthex is not walled off as Smirnov represents it, but is divided from the central chamber only by a transverse arch. There is no door from the narthex into the N. aisle. The N.-E. window of the apse is a single round-headed light with a small incised Greek cross in the central of the three arch stones (Fig. 14. The breaches in the masonry above the window have nothing to do with the original building). Whether the central window of the apse consisted of two lights or of one cannot now be determined with certainty, but I think the space would not allow of more than one light. The two arches of the W. door sprang from a double column. The narthex chambers have been vaulted from

E. to W. The apse is horse-shoed within; the outer wall takes the shape of five sides of an octagon. Except for the apse, the ground plan is very similar to that of No. 5, where it can better be illustrated.

Very little of the masonry remains. The interior walls of the narthex are of fine dressed stones, wedge-shaped and carefully laid, but the vaulting seems to have been roughly built and covered with plaster. The interior walls of the church are of smaller stones less well faced; these, too, were probably covered with plaster. The stones on the exterior of the apse are accurately coursed. Below the string-course, the masonry is of alternate wide and narrow layers. Here the work in the centre of the wall between the faced stones is not rubble but squared stones set in mortar. This must have been the system in most of the apses.

Smirnov saw two mouldings on the façade; the upper was a dentil (this is important, for I know of no other example of the dentil in Maden Sheher), the lower he describes as a cyma. This cyma moulding appears on all parts of the church now standing, and is always substantially the same. It is used under the windows outside the apse (Fig. 15 and Fig. 16 *a*), below the spring of the apse window arches, and round the inside of the apse below the spring of the semi-dome. Cut rather more deeply, it stands under the outer ends of the W. door arches (Fig. 16 *b*). It consists of a band (notched in the string-course on the exterior of the apse) and a pendulous cyma. The door leading from the narthex into the nave is characteristic (Fig. 17). Three strongly marked bands decorate the lintel and jambs; above the lintel is a shallow relieving arch of five stones, the space between having been filled in with rubble, most of which has fallen out. The keystone bears a small Greek cross incised upon the band that forms the outer edge. In the narthex, among heaps of fallen stones, there lies an oblong slab about 1·02 m. × 0·78 (Fig. 16 *c*). Two bands run round the edge, and the centre is filled with a cross. Similar slabs in other churches will be mentioned later. No. 8 formed at a late period the corner of the village fort; probably the W. door was blocked for purposes of defence (there may well have

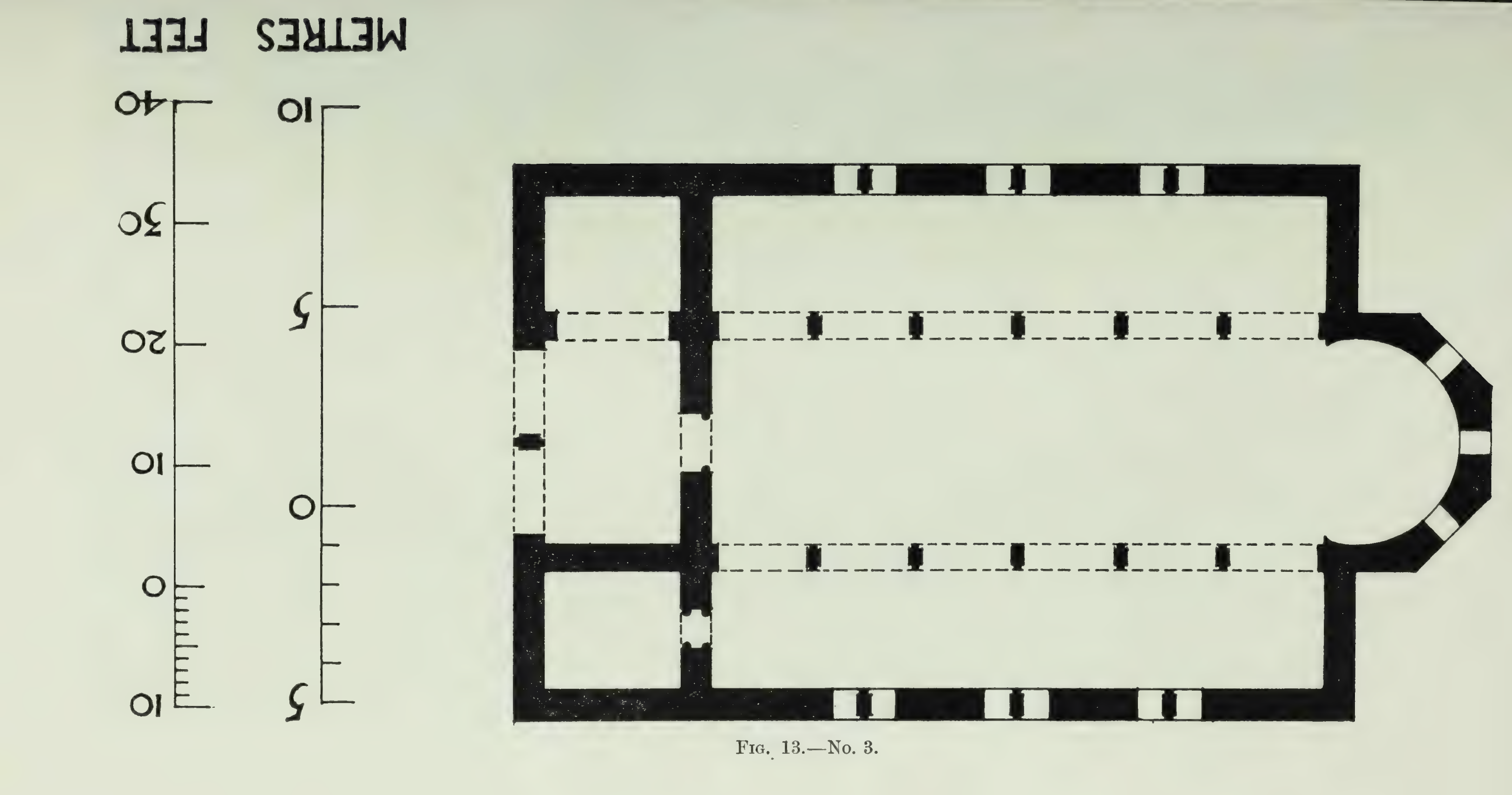


Fig. 13.—No. 3.

Fig. 14.—No. 3, outside of apse.

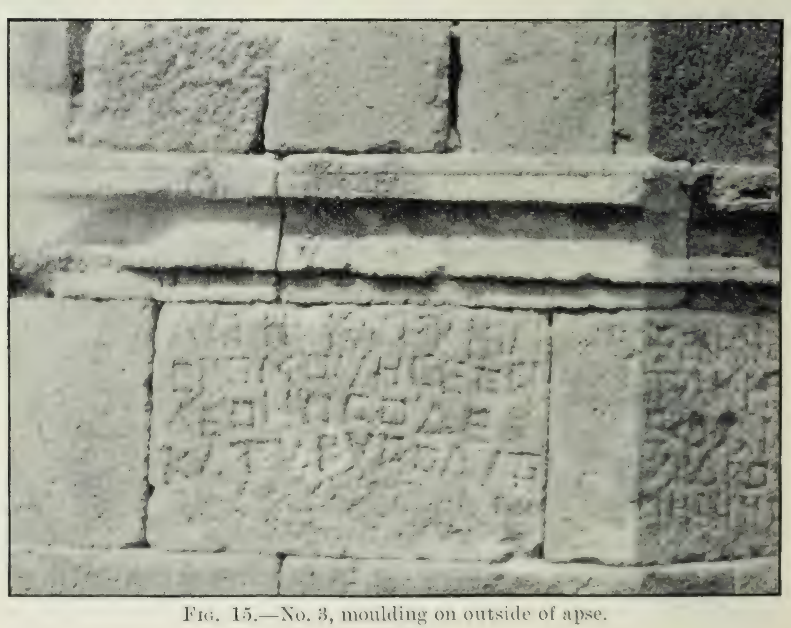


Fig. 15.—No. 3, moulding on outside of apse.

Fig. 16.—No. 3.



Fig. 17.—No. 3, door from narthex into nave.

5 0 5 10 METRES

10 0 10 20 30 40 FEET

Fig. 18.—No. 4.



Fig. 19.—No. 4, interior of apse.

been a door in the N. wall to give access from the village—*cf.* No. 5) and all available stones were pressed into the service. The slab may at this period have been brought from the apse, where I believe it to have been situated, into the narthex.

Hamilton, who visited Maden Sheher, says of this church: "a great deal of the roof had fallen in, but it had evidently been lower over the aisles than over the centre".[1] From which I infer that it was a true basilica with the nave raised above the aisles.

No. 4

Kleinasien: Smirnov's notes and plan, photographs by Smirnov and Crowfoot.
Holtzmann: Ground plan and details.

I reproduce Smirnov's plan with some slight corrections (Fig. 18). There is no door from the N. aisle into the narthex; the W. door of the narthex is wider than he makes it—it was a double arched entrance with a central column of which nothing but the base remains. The narthex has fallen, but we cleared out the foundations. No. 4 was a barn church[2] with arcades of four round arches between the nave and aisles (Fig. 19). The barrel vault of the N. aisle is standing; the vault of the nave must have risen a course or two above it, but not high enough to admit of windows in the upper part of the wall. The S. aisle has fallen; the N. aisle is lighted by two pairs of round-headed windows in the N. wall and a single window in the E. wall (Fig. 20). No doubt Smirnov is right in putting a pair of windows into the apse, but this part of the apse wall has fallen (Fig. 21). There is a door in the N. wall. The double columns of the nave and windows are of a close-grained greyish-blue limestone resembling marble. This stone is used in other churches, as will be noticed later.

The masonry is good, the stones large, the coursing even, though the courses vary in depth; there is a considerable thick-

[1] Asia Minor, ii., p. 318.

[2] I am translating the German term Hallenkirche, *i.e.*, a church, in which the nave is not necessarily raised above the aisles, and cannot therefore be lighted by clerestorey windows.

ness of rubble between the faced stones. The wall above the arcade is massive. The interior of the church was plastered and frescoed; there are traces of fresco in the apse and the N. aisle.

All the mouldings are shallow. The cornice on the N. wall, the string-course round the interior of the apse, and the moulding used under the spring of the window arches (Fig. 22 *a*) are all of the same character. Two others belong to the type of flat moulding, which I have seen nowhere but in the Kara Dagh and in Ali Summassi Dagh. One of these forms a sill beneath the windows (Fig. 22 *b*). It is not carried the whole length of the wall, but terminates with a flat half-disc which fills up the end of the shallow concave member. At the same level in the wall a string-course runs round the outside of the apse and under the E. window of the aisles (Fig. 22 *c*). It depends for much of its effect on the projection from the wall of the block on which it is worked. It consists of a filleted band, a shallow concave member, and a second band, filleted on the upper edge. The fillets or notches on either side of the concave member terminate beyond the northern window (the southern window has fallen) in a fish-tail motive, the angle of which fills the shallow groove. This is one of the commonest schemes of decoration in the Kara Dagh. An interesting fragment lies among the ruins inside the church (Fig. 23). Two narrow bands, divided from one another by a fillet and a notch, surmount a deep cavetto; below this is a band decorated with pointed leaves placed point to point so as to form a zigzag pattern. The doorway which appears in the photograph behind this moulding is that which leads from the S. aisle into the chamber at the southern end of the narthex. It is decorated with a moulding which is no more than the string-course (Fig. 22 *c*) applied to lintel and jambs. At the corners the central groove is crossed obliquely by a raised bar. A large number of doors in the Kara Dagh are treated in this manner; compare the N. door of this church (Fig. 22 *e*). The W. door is decorated with very shallow mouldings (Fig. 22 *f*). In the centre of the wide upper member is an incised Greek cross with forked arms. All three doors have a relieving arch of three stones over the lintel. The double columns in the arcade are decorated on the flat surface between



Fig. 20.—No. 4, from N.



Fig. 21.—No. 4, exterior of apse.

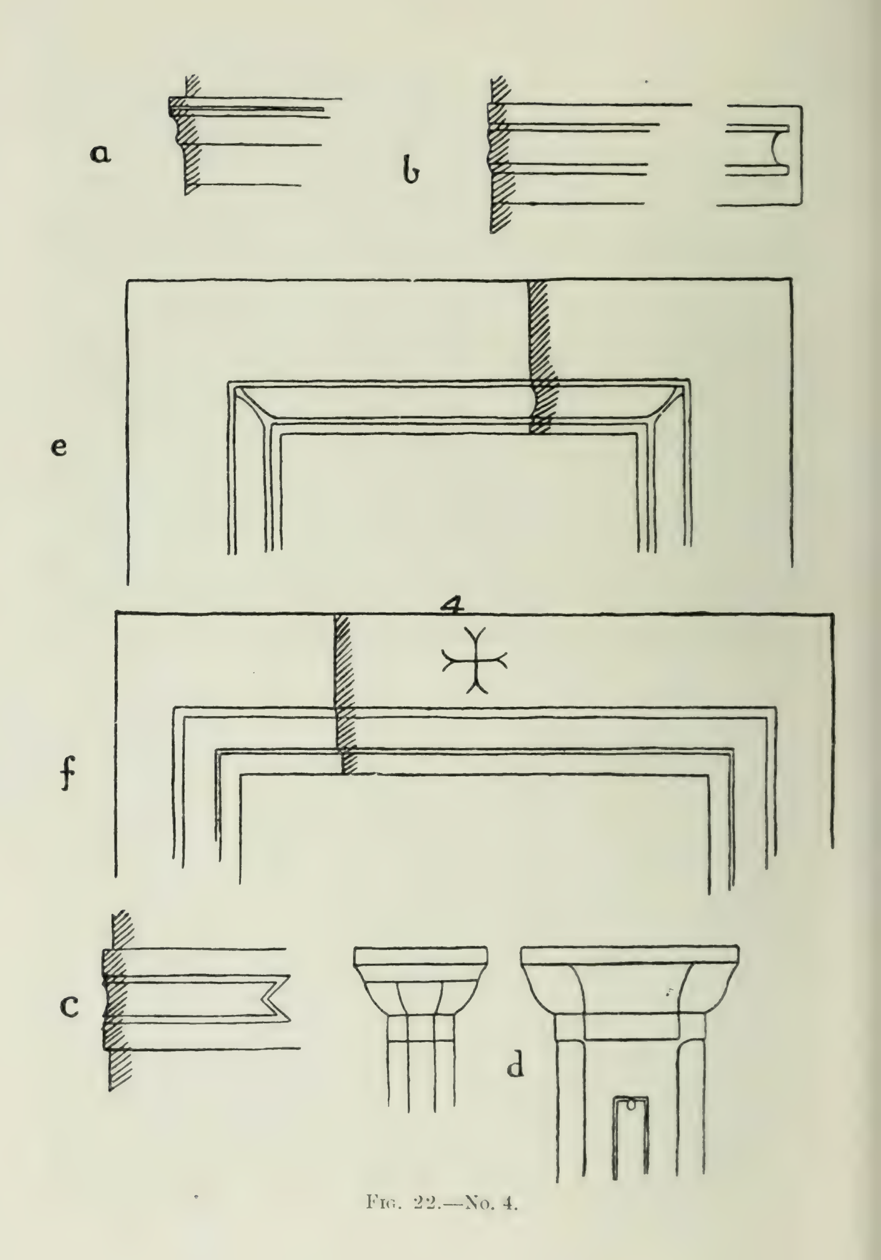


Fig. 22.—No. 4.

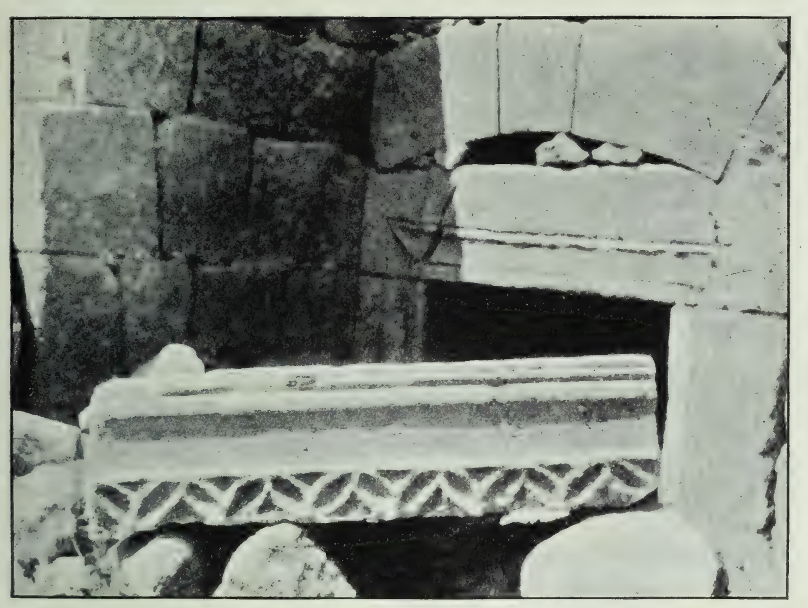


Fig. 23.—No. 4, carved stone lying near W. door of S. aisle.

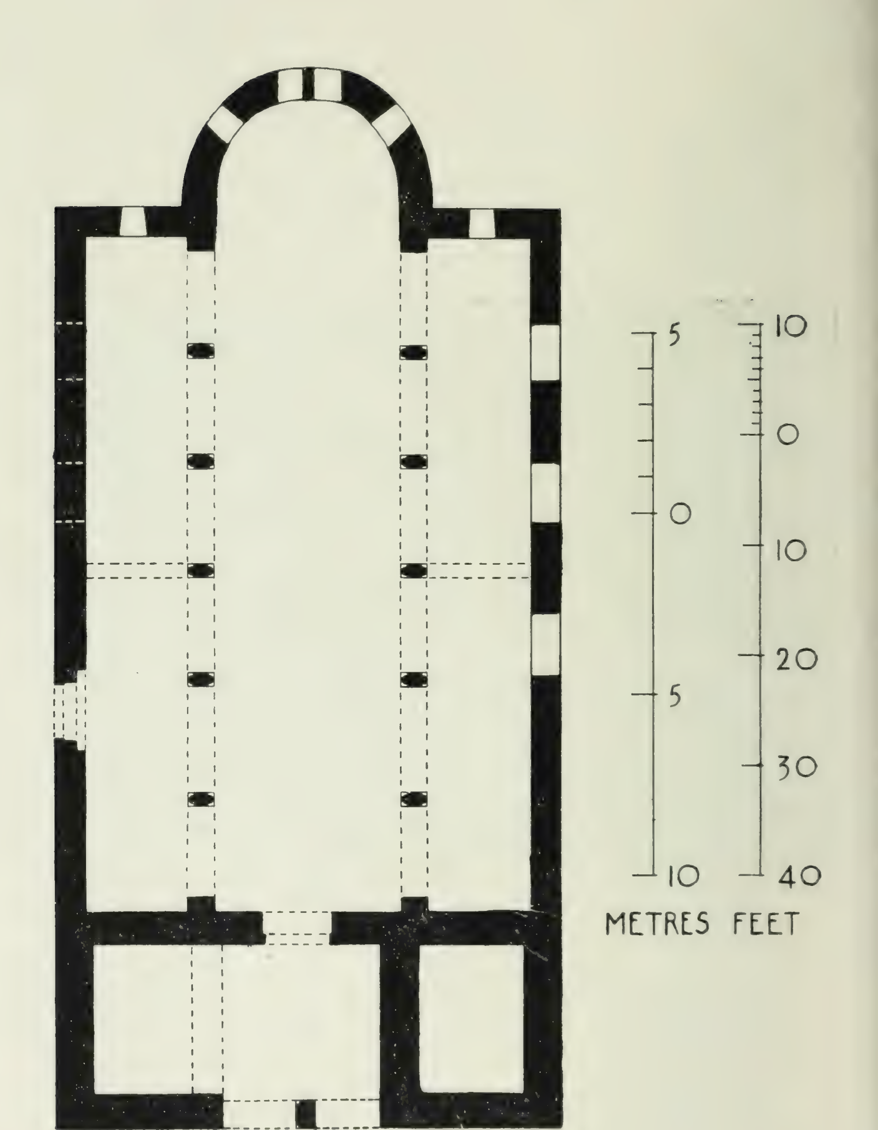


Fig. 24.—No. 5.

the curving ends with a narrow incised panel. Above it an oblong raised surface runs up to the upper band or abacus (Fig. 22 *d*). On the narrow ends, incised lines run up the column into the capital and terminate below a shallow cavetto, above which is the abacus.

My photograph of the nave and apse was taken in 1905. The N.-E. engaged column, decorated as Smirnov mentions, with a flat half-disc and a cross, can still be seen in it, but this column as well as a part of the arch above it have since fallen away.

No. 5

Kleinasien : Notes, plan and photograph by Smirnov.
Holtzmann : Plan and details.

A church with a narthex, a nave and aisles divided by arcades of six arches resting on five double columns and two engaged piers (Fig. 24) : it closely resembles No. 3 (Fig. 25). The arrangement of the narthex with a closed chamber to the S. is the same as in Nos. 3 and 4. The narthex and W. end of the church have fallen, the N. wall is much ruined, a part of the S. wall remains, showing window openings which, from their width, were probably divided by columns into double lights as Smirnov has drawn them. (He indicates six ; I can only be sure of three, and there cannot have been more than four.) The W. doorway into the narthex was divided by a double column into two arched openings. Opposite to it a door led into the nave. There was no door into the N. aisle, but a door at the end of the S. aisle led into the southern chamber of the narthex. The double columns in the nave are of the same type as the double columns of No. 1. The capitals are very carelessly carved with two roughly indicated bands narrowing downwards under an overlapping abacus (Fig. 26). Nave and aisles have been roofed with parallel barrel vaults of dressed stones. The spring of a transverse arch can be seen in Fig. 27 above the central column of the arcade, and over the arch to the left of it the first courses of the barrel vault appear. It cannot be determined whether the nave was lighted with upper windows or not ; judging from the height of the aisle vault I

am disposed to think that there were no upper windows. There were single windows at the E. end of the aisles. The apse (my photograph was taken in 1905) is more ruined than it was when Crowfoot and Smirnov saw it. It was lighted by a central double window and two single windows, all arched. The arches resemble those in the apse of No. 3, except that they are composed of four stones instead of three (Fig. 28). None of the arches in this church are horse-shoed.

The masonry is of well-squared and well-jointed stones, coursed with tolerable exactitude. A good deal of reddish stone is used indiscriminately in the interior of the apse, but it does not seem to have been set there for any decorative purpose and probably it was hidden by plaster and fresco.

The string-course round the exterior of the apse below the windows (Fig. 29 *a*) is of the concave type described in No. 4, but exceptionally shallow. The moulding under the spring of the window arches is composed of a pendulous cyma between two notched bands (Fig. 29 *b*) ; the same moulding runs round the inside of the apse. The lintel of the W. door is boldly cut (Fig. 29 *c*) ; it consists of two pendulous cymas separated by a narrow band. The lintel of the N. door has gone, but the N. jamb remains (Fig. 29 *d*), showing a cyma with a deep notch between bands. The engaged pier at the N. side of the apse is carved with a cross as Smirnov noticed. Lying on the ground E. of the apse are two interesting double columns with capital and column worked in a single block—one has probably fallen from the E. window, the other may have come from one of the double windows of the aisles. In each of them only one end is completely worked. The first example (Fig. 29 *e*) is decorated on the sides with a rope motive and three fillets. An oblong panel fills the space between the two engaged columns ; at one end the rope disappears into the curves of volutes like a ram's horns. The second (Fig. 29 *f*) has a zigzag pattern with four fillets above it. The uppermost fillet spreads into a triangular shield, the point of which drops below the zigzag band. A modified form of the shield appears at the other end of the double column, but without the zigzags or fillets. A narrow panel again occupies the centre of the double column.



Fig. 25.—No. 5, nave and apse.



Fig. 26.—No. 5, double column of nave.



Fig. 27.—No. 5, S. aisle, looking E.

Fig. 28.—No. 5, apse window.

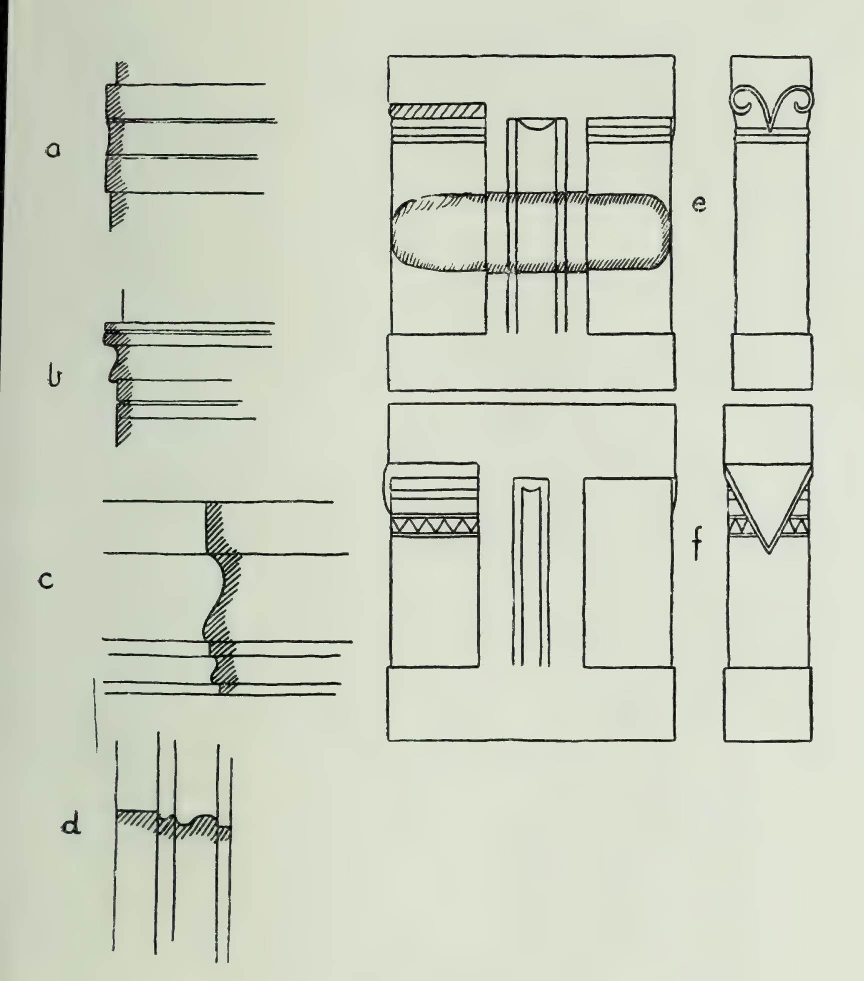


Fig. 29.—No. 5.



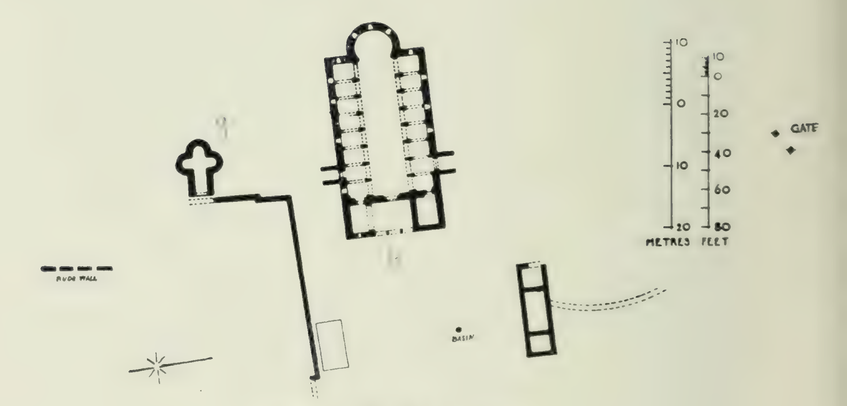


Fig. 30.—Nos. 6, 9 and 24.

Nos. 6, 9 and 24

Kleinasien: Sketches and notes of No. 6 by Crowfoot and Smirnov; plan and elevation of No. 9.
Holtzmann: Plans, elevations, and details of Nos. 6 and 9.

The church No. 6 and the two chapels Nos. 9 and 24, together with an oblong block of three rooms to the W. of the church, form a group which was probably surrounded by a wall (Fig. 30). Parts of the enclosing wall can still be traced, though most of it has been swept away to clear the cornfield which now occupies the ground to the S. and E. The group of buildings lies on some high ground at the N.-E. foot of Maden Dagh. N. of No. 9 there is a slight rise towards a rocky knoll which commands the road leading into Maden Sheher from Konia. On the S. side of this knoll Sir W. Ramsay observed traces of a rude wall; no doubt this point had been fortified in very early times so as to protect the approach to the town. Seven metres from the N. wall of the church, a long sustaining wall prevented the earth from falling away into a little dip W. of the knoll. This wall runs parallel to the church wall for a few metres, then turns N., and passing in front of No. 9, disappears into the rising ground of the knoll. A number of wine or oil presses are cut in the rocks on the eastern side of the hillock. The chapel, No. 24, lies to the S.-E. of the church. Below it, to the S., there are traces of a house divided into small rooms. W. of No. 24, just below the slope of Maden Dagh, is a gateway which gave access to the enclosure. Remains of the W. wall can be seen connecting the gate with a small oblong building, consisting of three chambers, S.-W. of the church. The enclosing wall curves to the W., following the slope of Maden Dagh, and joins the S. wall of this building, which must itself have formed part of the line of defence. A little farther to the N. there is a massive stone basin 1 metre in diameter, with some stones round it. Still farther N. against the sustaining wall, there is a large vaulted cistern. On the slopes of the hill W. of the gate, and therefore outside the line of the enclosing wall, are ruins of small houses. The disposition of the whole area suggests that the point of hill below

Maden Dagh was occupied by a fortified monastery which took the place of more ancient defences. A small cruciform chapel is found in almost every group of monastic buildings in the Kara Dagh; we have never seen a font nor any apparatus for drainage in these chapels, but in one case (Mahaletch) there is a memorial inscription on the E. wall. It seems probable that the chapels were not baptisteries, but were all of a memorial character. Most of the monastic establishments in which they appear are placed upon the tops of hills; it would be in accordance with Anatolian custom that such sites should be sanctified by a grave, but scarcely conceivable that the baptisteries should have been relegated to heights almost inaccessible during the months of winter snow. The only church in which we found a baptismal font is No. 16, where it is not in a detached cruciform chapel, but in a chamber built out from the N. wall.[1] The close connection between cruciform and trifoliate ground plans and the memorial church has been worked out by Strzygowski,[2] and will be considered later in reviewing the new material provided by the Kara Dagh. The stone basin to the W. of No. 6 should be compared with one which De Vogüé found in the monastery at El Barah, near the S. door of the church. He regarded it as a basin used for ritual ablutions, and such was no doubt the purpose of the basin in No. 6.[3] (Another plain stone basin lies outside the village not far from No. 2.) There may have been more cells to the S. of the church which have been obliterated by the plough. Monastic buildings are always very roughly constructed, and are not difficult to destroy. The outer wall itself is on this side so completely swept away that but for the important evidence of the gateway its existence could scarcely have been surmised.

No. 6 is the second largest church in the Kara Dagh. In length it falls barely 3 metres short of No. 1, and the width of the two is about the same. Like No. 1, it was ruined during the Christian period, and the reparation of the aisles was carried

[1] Sir W. Ramsay has now discovered a font in No. 29: it is placed in the narthex.

[2] Orient oder Rom., p. 19. Kleinasien, pp. 26 and 135.

[3] De Vogüé: La Syrie Centrale, p. 97.

out in the same manner. The entrance to the narthex consists of three arched openings; the horse-shoe arches resting on two oblong piers (Fig. 31). No. 6 and one of the churches on Mahaletch are the only examples in the Kara Dagh of the triple door which is so common on the Cilician coast. The narthex was certainly three storeys high: on the N. side there are remains of the wall of the third storey (Fig. 32). It was lighted in all probability by a central window in the W. wall; very tiny loopholes can still be seen to the N. and S. in the upper parts of the wall. The narthex is partitioned off to the S., where there is a closed chamber which could be approached only from the S. aisle. The central chamber stands two storeys high and there are traces of vaults running from E. to W. in both storeys. Sir W. Ramsay is of opinion that the upper vault belongs distinctly to the reconstruction. The S. wall of this chamber is obviously rebuilt in its upper parts. The N. chamber of the narthex also stands two storeys high and shows the beginning of the outer wall of a third storey. Both the ground-floor chamber and the first-floor chamber were undoubtedly roofed with beams. For the roof of the ground floor there are three irregularly placed holes to receive the beams in the N. wall, and in the W. wall a space 6 in. deep between two courses as if to receive the planks of the roof. Eight feet above this there is a small set-back in both N. and W. walls for the beams to rest on. The chambers on the S. side of the narthex have been similarly roofed. A large door leads into the nave, a smaller door into the N. aisle. The nave was divided from the aisles by arcades of eight arches, borne on seven oblong piers and two engaged piers. The arches have fallen, but the piers are all *in situ*. The stone used for the piers is coarse in grain, and the surface is but roughly dressed. I did not see the crosses mentioned by Smirnov on the eastern engaged piers, nor did it appear to me that the surface was prepared for decoration. The N. aisle is less ruined than the S. aisle; two of the repaired bays still stand at the W. end (Fig. 33). It will be observed that the system is exactly the same as that employed in the reparation of No. 1. The barrel vault parallel to the nave vault has been replaced by a series

of eight transverse barrel vaults, to support which piers were placed against the piers of the nave and engaged piers against the N. wall. These last block some of the windows in the N. wall. The new barrel vaults have a marked slope downwards towards the outer wall. Smirnov in his sketch represents the arches of the arcade as horse-shoed; they had all fallen when I first saw the church in 1905. The vaults were not horse-shoed. They were built of rubble and cement, some very rough form of centering having been used in their construction. (Mr. Lethaby suggests that the centering may have been merely piled up earth.) The arched shape was scarcely preserved—the photograph shows the form to have been almost a gable,—but the builder seems to have intended to construct round vaults. The transverse arches between the bays are, however, horse-shoed. There is a door with a porch in the N. and another in the S. wall. The S. door falls clear of the engaged piers of the reparation and retains its original width, but the N. door was placed with customary irregularity a few centimetres farther to the E., one of the engaged piers partially blocked it, and the door was therefore narrowed on the E. side, while the porch, which has now fallen into complete ruin, was either narrowed or re-constructed correspondingly. The original E. jamb can still be seen behind the engaged pier. There are five windows in the N. wall but only three in the S. wall (Fig. 34). They are wedge-shaped and square-headed. A similar window breaks the E. wall of both aisles. The apse is horse-shoed both in ground plan and in elevation (Fig. 35), but the horse-shoe of the ground plan is not preserved above the capitals of the engaged piers, with the result that the inner line of the arch does not correspond with the inner edge of the capital, but trends outwards from it. The apse is lighted by three round-headed windows. I do not doubt that the arrangement of the nave and aisles resembled No. 1, *i.e.*, that the nave walls were carried up above the aisles and broken by windows which lighted the nave from above. The low aisles point to this construction. The eastern bay of the nave must have been separated by a screen across the nave from the bays to the W. of it; the two



Fig. 31.—No. 6, from W.



Fig. 32.—No. 6, from S.-E.



Fig. 33.—No. 6, bays of N. aisle.



Fig. 34.—No. 6, from N.



Fig. 35.—No. 6, interior of apse.



FIG. 36.—No. 6, N. wall of narthex.



Fig. 37.—No. 6, exterior of apse.

eastern piers have short grooves on the inner sides into which the bars of the screen were fitted.

The masonry is extremely rude. In the N. and W. walls of the narthex it is almost polygonal in character, the stones being laid more irregularly in the upper than in the lower parts of the wall (Fig. 36). Sir W. Ramsay suggests that all the upper part of the walls may have been rebuilt at the time of the reparation, and in support of this theory it may be observed that the stone-work of the N. wall up to the height of the windows (which are obviously a part of the original building since they were blocked in the reparation) is fairly regular. The masonry of the upper part of the apse is also inferior to that of the lower, and it is possible that the cement and rubble of the semi-dome may belong to the later period, but at best all the stone-laying is exceptionally irregular.

The exterior of the apse is decorated with a slightly projecting course of plain stones immediately below the windows and a moulded string-course one course below it (Fig. 37). This moulding consists of a band and a shallow **S**-shaped cyma, the lower edge of which scarcely retreats in profile behind the upper (Fig. 38 *a*). Contrary to the usual custom, there is no moulding below the spring of the window arches. The capital of one of the narthex piers suffices to illustrate all the capitals and engaged capitals of the church (Fig. 38 *b*, and Fig. 39). It is an impost block, simply moulded. The lintel of the W. door is decorated with a series of bands, the S. door is more interesting (Fig. 38 *c*, and Fig. 40). The profile used both on lintel and jambs is composed of a cavetto and a half round forming together an **S**-shaped cyma with a notched band running round it, but like the S. door of No. 1 the corners of the lintel have not been worked in. The moulding on the N. door is very shallow; it is the adaptation of the concave moulding noticed in No. 4 with a cross in a medallion on the centre of the lintel.

No. 9 is a small chapel with a trifoliate apse and a long narrow nave. The E. end is roofed with three semi-domes and a central dome, partly concealed within a square tower (Fig. 41). The N. and W. arches which supported this dome are still standing; they are strongly horse-shoed. Above the arches a moulded

band runs round the interior of the rectangular substructure of the dome. At the angle the stones on which this band is cut are set across the corners, turning the rectangle into an octagon. The oval of the dome stands back behind the corners of this octagon. It is noticeable that the angle stones are so cut as to form very elementary pendentive; that is to say, each block forms at once a corbel across the angle and a small pendentive filling up the angle below the corbel (Fig. 42). Outside, the cement and the rubble of the calotte rise considerably above the cornice of the tower; presumably the calotte was covered with stone slabs, forming a pointed roof, which has now fallen. (No part of the outer covering of any of the domes or vaults is left, but it was probably always of stone as there are no fragments of tiles among the ruins.) The interior of the dome is carefully built of dressed stones. The W. door is standing, the lintel and jambs being decorated with filleted bands (Fig. 43 *a* and Fig. 44). The chapel was lighted by a window in the E. apse; possibly there were similar windows in the N. and S. apses, but the walls have fallen. As in No. 6, the outer walls of the apses show two slightly projecting courses of stones below the windows; but in the chapel both courses are unmoulded. The engaged capitals below the arches are more elaborate than any in the Kara Dagh. Below the abacus and cavetto there are a bead or roundel with a bevel on either side, and a band, under which the stone retreats slightly to join the face of the wall (Fig. 43 *b*, and Fig. 45). A simple roundel between bands forms the string-course under the dome (Fig. 43 *c*). The general character of the masonry does not differ materially from that of the apse of No. 6.

No. 24 is a small chapel without aisles, much ruined. The narthex and the apse are both distinctly visible.

The jambs and lintel of the gateway leading into the monastic enclosure are moulded with a small shallow groove between notched bands, but, as in the S. door of the church, the corners of the lintel are not finished off.

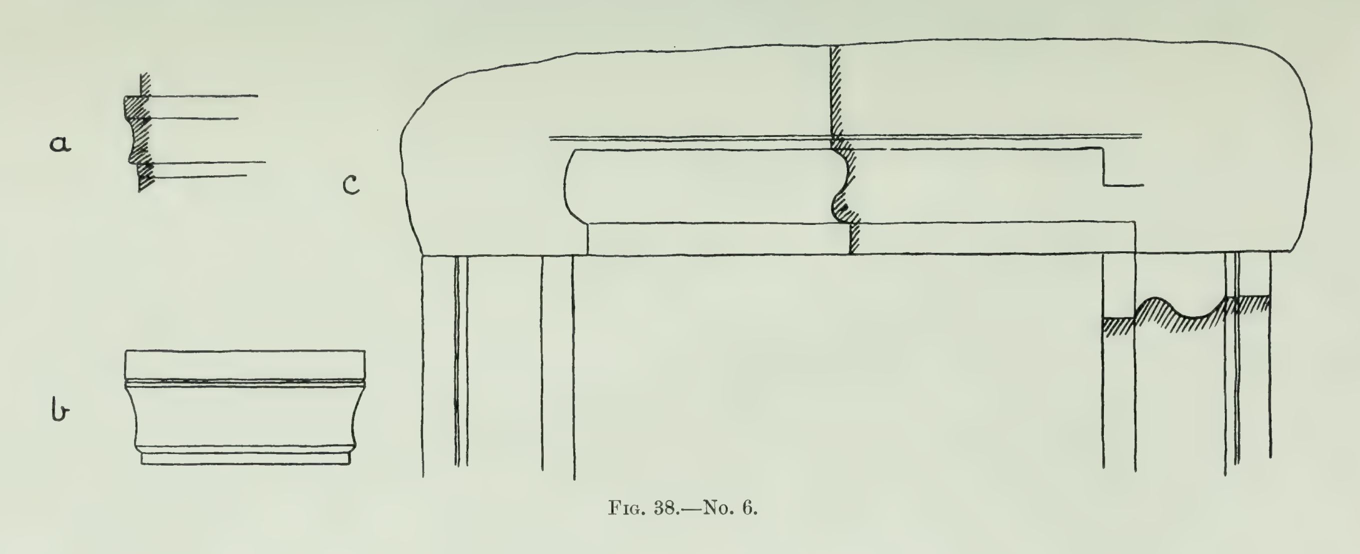


Fig. 38.—No. 6.



Fig. 39.—No. 6, capital in narthex.



Fig. 40.—No. 6, S. door.

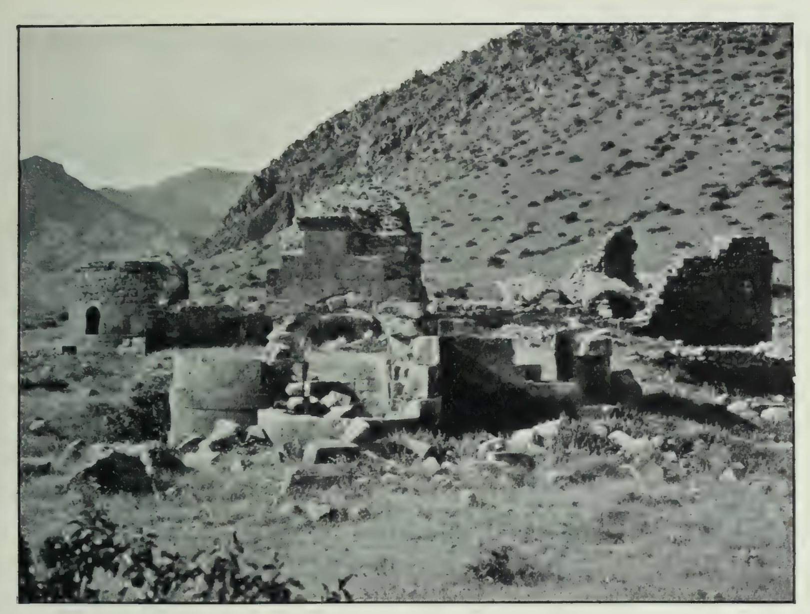


Fig. 41.—No. 9, from N.



Fig. 42.—Dome of No. 9.

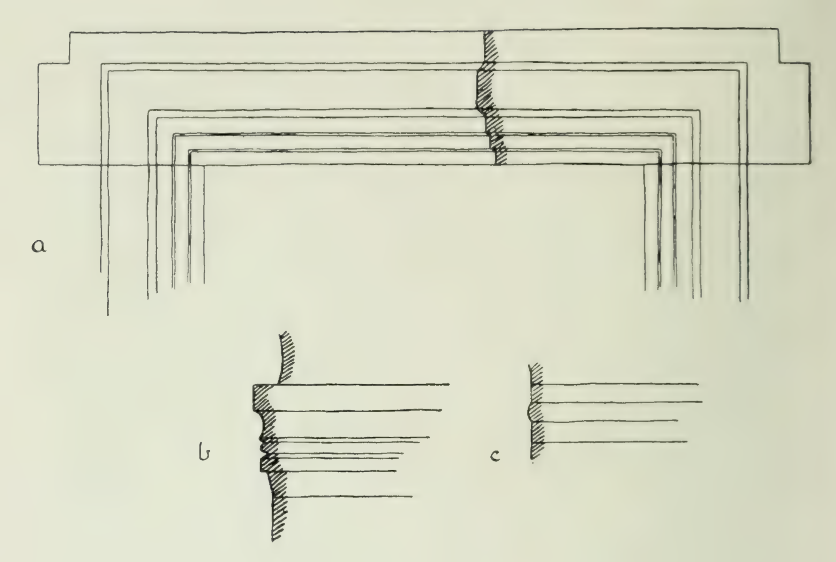


Fig. 43.—No. 9.

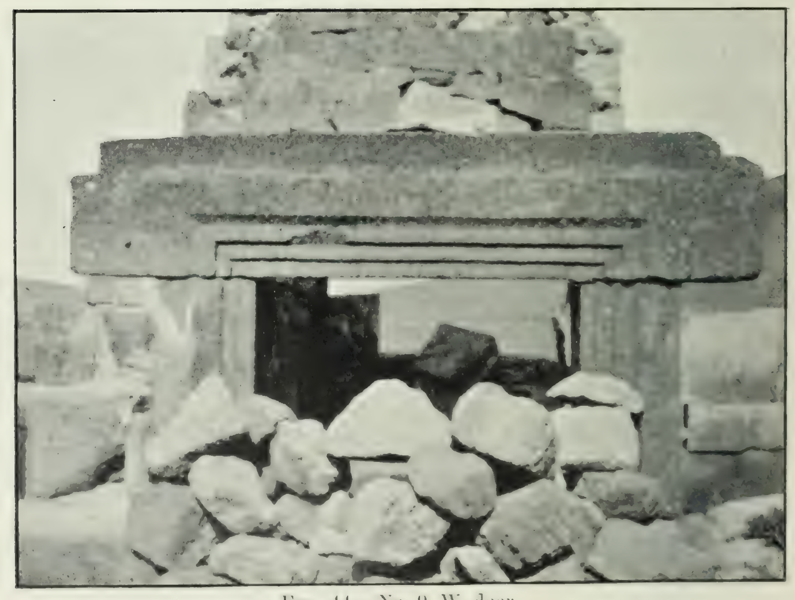


Fig. 44.—No. 9, W. door.

No. 7

Kleinasien: Photographs, notes and a plan by Crowfoot and Smirnov.
Holtzmann: Plan and details, the plan is quite misleading.
De Laborde:[1] A drawing.

No. 7 consists of a group of buildings (Fig. 46). To the W. is a church with a narthex, a nave, aisles and a horse-shoed apse; an irregular atrium lies before the narthex, though whether it is part of the original design is open to question. E. of the church there is an enclosed area, in the E. wall of which is a large apse nearly 7 metres wide, the apse of the church being only a little over 4 metres wide. It is an exedra, standing by itself slightly to the S. of the axis of the church and having no structural connection with the church. Only this exedra and the narthex of the church are standing (Fig. 47); the nave and aisles of the church and the walls of the enclosure are ruined down to the present level of the ground.

The exedra consists of a slightly stilted apse, horse-shoed in elevation (but not horse-shoed in ground plan as it has hitherto been represented), the walls of which are about 1 metre thick. Before the apse lies a horse-shoed barrel vault springing from walls almost double the thickness of the apse wall. These walls are broken on either side by a horse-shoe arched doorway (Fig. 48). About 1·50 metres farther to the W. there are two roughly rounded bases with an oblong hole in the centre of the upper surface. Lying on the ground by the N. wall of the exedra is a large round column of red stone with its end shaped to fit the hole in the base. Between the two bases is a fragment of stone pavement, or a step, of which but one course of stones remains, irregular in width (it narrows towards the middle) and resting immediately upon the ground. The N. base lies at a distance of 1·65 metres from the N. wall of the exedra, the S. base is 20 centimetres nearer the S. wall, and 30 centimetres farther away from a line drawn from E. to W. through the centre of the exedra. The W. face of the exedra shows no signs of having been connected with the two columns by architrave, or archivolt; they must therefore be conceived as standing detached from the other

[1] Voyage en Asie Mineure.

building. Whether they were connected with each other by an architrave is a matter of conjecture. There are two bands of mouldings round the W. arch of the exedra (Fig. 49). The inner band runs down to a horizontal moulding in the wall below the spring of the arch, the outer crowns the top of the arch, and, at the point where in the photograph it appears to be broken off, turns away horizontally to N. and S. and forms a cornice round the apse. In Fig. 50 a large fragment of this cornice can be seen. The lower horizontal moulding below the arch is continued all round the interior of the exedra below the spring of the barrel vault and the semi-dome. Outside, it runs for a short distance along the N. and S. walls and terminates abruptly at a point corresponding to the outer line of the voussoirs at the base of the side arches. These archways opened into the walled enclosure, the walls of which joined the exedra immediately to the E. of them. On the N. side (Fig. 50) the projecting wing of the exedra remains; it is carried up as high as the cornice, and the moulding that runs round the apse about one-third of the height from the ground is continued on it. There is nothing to show how the walls of the enclosure fitted on to the wings of the exedra, nor what was their height; the masonry foundations, 0·88 cm. thick, of wing and wall are continuous and unbroken on the S. side; on the N. side they have been cleared away, as the ground is under cultivation. Some 13 metres to the N. and S. of the exedra the walls turn W.—the block of masonry that formed the angle is all that remains on the N. side, but the S. wall runs due W. for about 25 metres, then turns slightly to the N. and joins the W. wall of the atrium at an oblique angle. As far as I could judge from the small portion of the wall that remained, the masonry deteriorated towards the W. end, but the change did not begin until some metres W. of the point at which the wall trended northwards. The church was connected with the enclosing wall by a transverse wall of very poor masonry that started immediately to the W. of the S. door. A doorway led into a small chamber lying against the S. wall of the church; there was another door at the W. end of this chamber and a window (?) to the S. The chamber and the transverse wall appeared to be later additions. The foun-



Fig. 45.—No. 9, engaged capital.

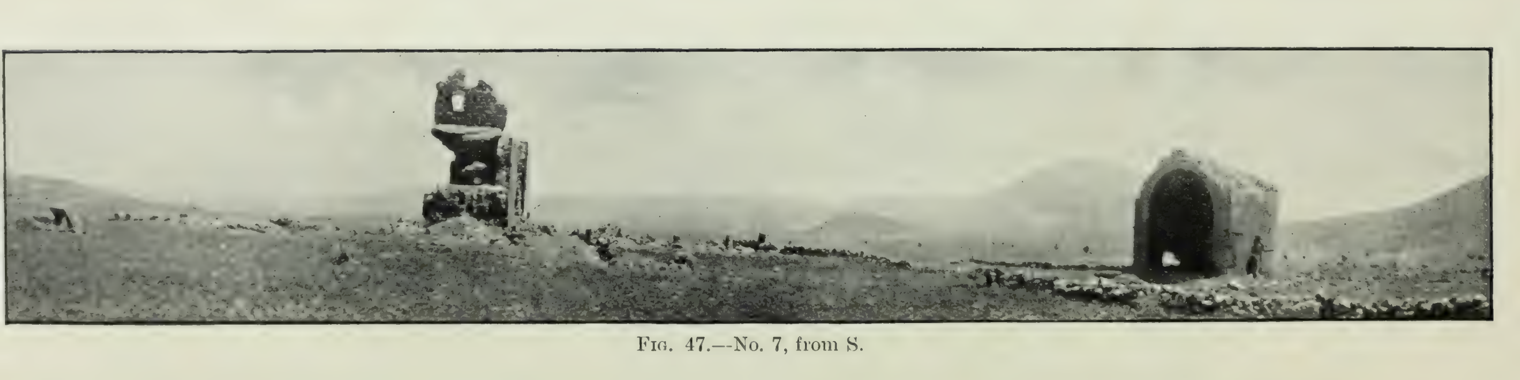


Fig. 47.—No. 7, from S.

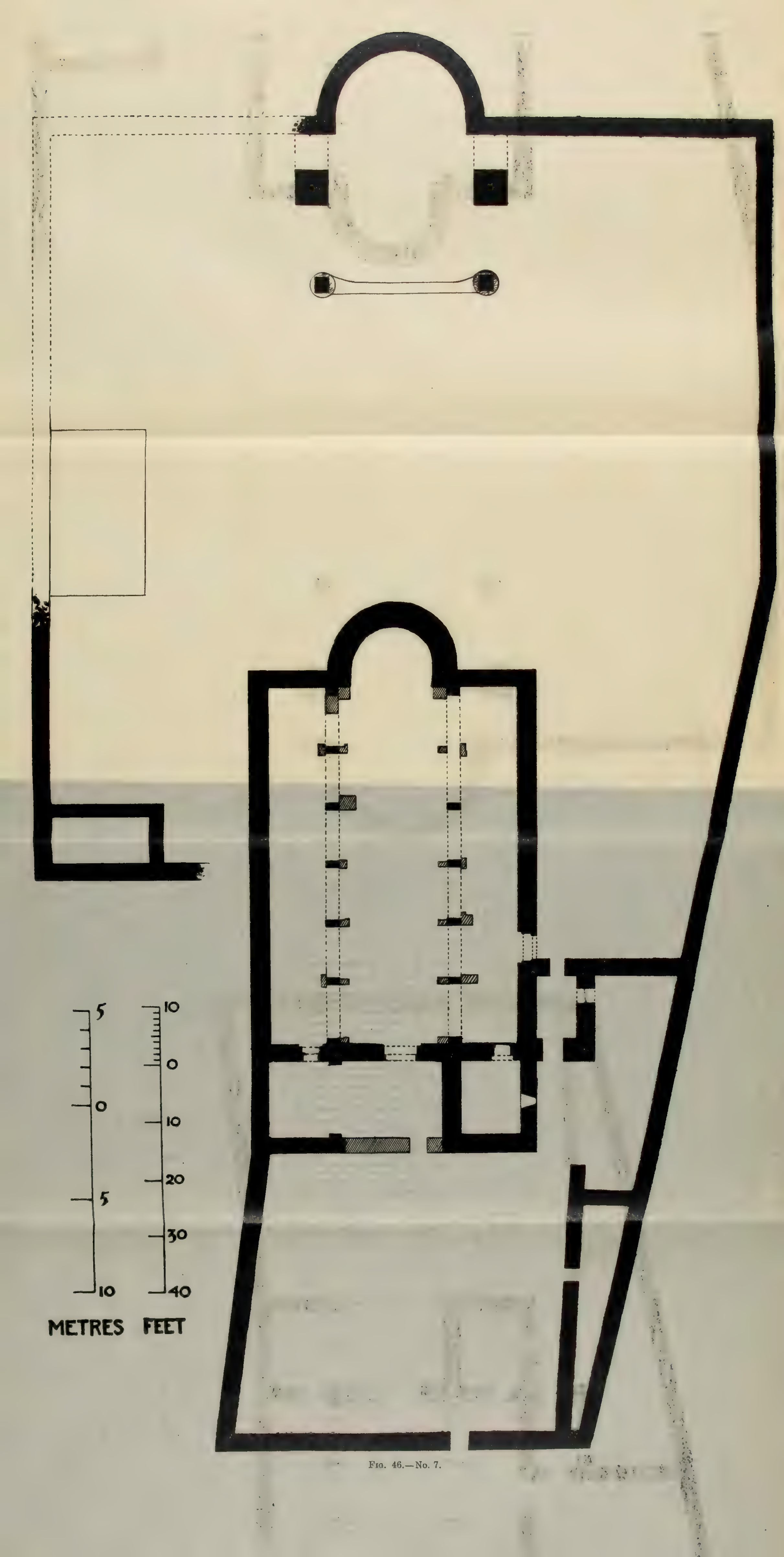
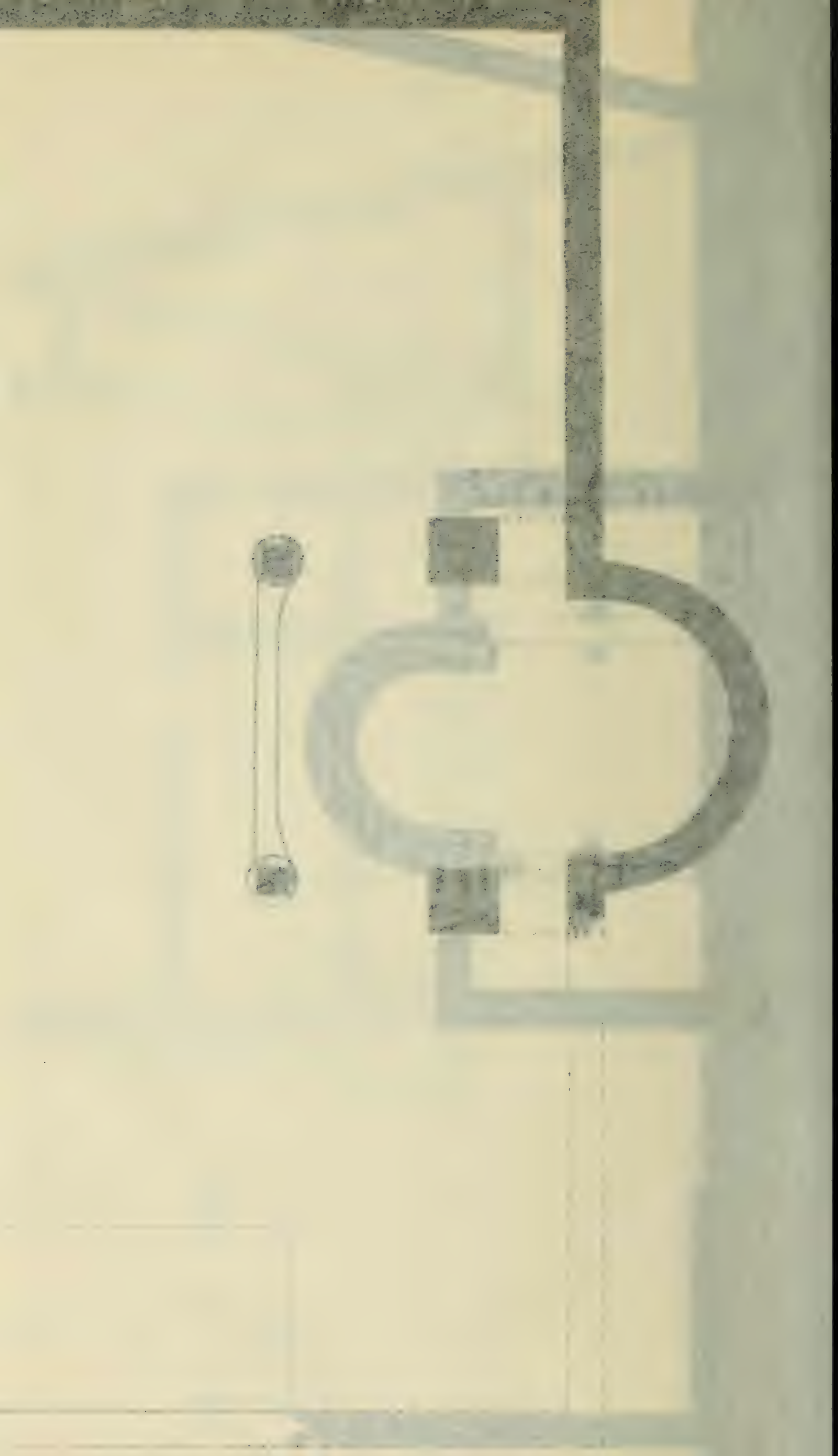


Fig. 46.—No. 7.



dations of other walls, also very poor in construction, could be seen on the S. side of the atrium. The atrium is not square with the narthex of the church, and I do not think that it is contemporary with the church. It had one small door in the W. wall. The N. wall of the enclosure is still more difficult to trace. It ran due W., skirting the ruins of a large vaulted cistern, to a point nearly opposite the middle of the church, where it turned S. and disappeared. Between the two bases (in front of the exedra) and the apse of the church there is no sign of building, but in cutting trenches across the area we came upon several graves. They resembled coffins roughly built of stone slabs; three slabs formed the lid, but the bones rested upon the soil with no stones under them. I cleared out three (one was that of a child) and found nothing in them but bones. A trench dug lengthways across the exedra down to the native rock disclosed no grave.

The church, too, presents difficult problems. The narthex is tolerably well preserved, but even here the W. wall has fallen almost entirely. Fig. 51 shows on the right the vaulted chamber at the S. end of the narthex, above it the N. wall of another chamber with the beginning of the vault, and above that the corresponding wall of a third vaulted chamber (this last is better seen in Fig. 47). On the N. side of the partition wall can be observed the spring of three vaults that roofed the central part of the narthex; the first and second vaults to the N. start from the wall at points rather higher up than the corresponding vaults to the S. In the top storey there was a door between the central and southern chambers (Fig. 47). At the N. end of the narthex, part of the W. wall stands, though the facing stones have fallen away. Behind it appears the E. wall of the first upper storey with two small square windows in it, one above the other. On the S. side of the narthex the ruins show that the chambers on the ground floor and on the first floor were vaulted from E. to W. In the central part of the narthex, the ground-floor chamber was probably roofed with beams—there is a ledge in the S. wall to receive the ends of these beams—and the first-floor chamber was vaulted from E. to W. At the N. end of the narthex the ground-floor chamber had been roofed with beams;

there were square holes in the E. wall to receive them. The upper part of the second storey is not standing on this side. There is no evidence as to the roofing of the third-floor chambers except slight signs of a barrel vault on the S. wall of the central chamber. The lintel in the middle of the narthex (Fig. 51) is that of the door leading into the nave, and the vault behind it is the exedra. On clearing away the ruins in front of the narthex I found that the original plan of the W. wall exactly resembled No. 1. There had been an opening in the middle of the wall wide enough to allow for a double arched doorway. The only difference between Nos. 7 and 1 is that in No. 7 the N. end of the narthex was not walled off into a closed chamber, but divided from the central chamber only by a transverse arch springing from engaged columns still *in situ*. At some later period the double arched doorway had been filled by an irregular, badly built wall, in which there had been a small door not centred to the door into the nave behind it. De Laborde's view (Kleinasien, p. 26), drawn in 1826, shows the original double arched door with horse-shoe arches; above it the wall is broken by what, on the analogy of other churches, must be a moulded string-course, and above the string-course there is a group of four horse-shoe arched windows. We have tested De Laborde's drawings on the spot, and have found them to be fairly accurate, yet I do not know how to reconcile his perfect double door with the reconstruction which I found in the façade. (Fig. 53 shows the view taken as nearly as possible from the same spot as De Laborde's drawing.) It is unlikely that the door should have fallen and have been repaired with masonry since De Laborde's time. The whole church, as will presently be shown, has been repaired on a large scale; all the work, old and new, has fallen nearly to the foundations, and the greater part of the ruins has disappeared. Since 1826 there has been no one to undertake such extensive building operations or even such fundamental clearances. There are, therefore, only two explanations of De Laborde's drawing: either he saw traces of the original doorway and drew it as he conceived it to have been formerly, or (and this is more probable) he confused, when finishing his drawings away from the spot, the façade of No. 7 with that of No. 13, which was standing in his day but has since fallen. In



Fig. 48.—No. 7, exedra, from S.



Fig. 49.—No. 7, exedra, from S.-W.



Fig. 50.—No. 7, exedra, from E.



Fig. 51.—No. 7, from W.



Fig. 52.—No. 7, narthex, from E.



Fig. 53.—No. 7, from N.-W.

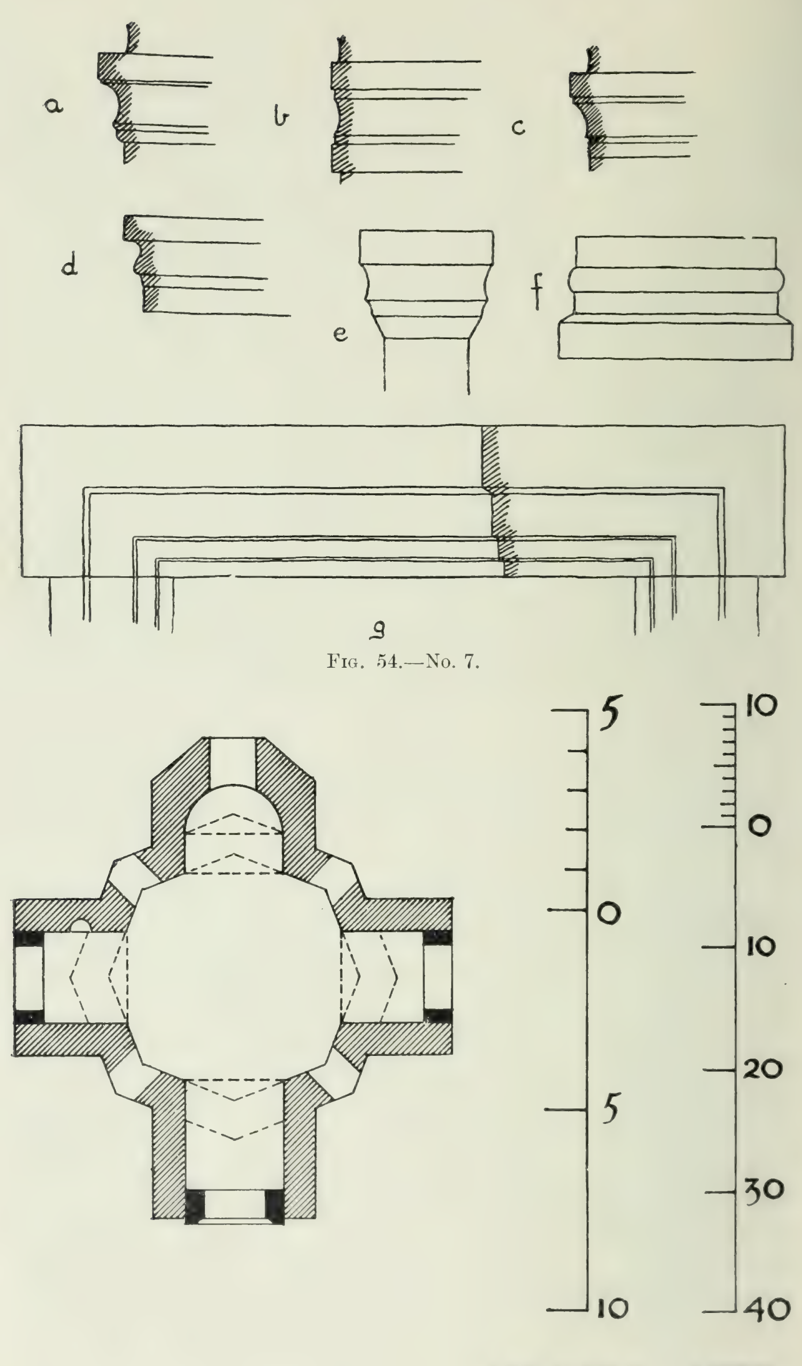


Fig. 54.—No. 7.

Fig. 55.—No. 8.

his drawing of No. 13 he represents the doorway as ruined, while the rest of the façade remains almost perfect, and that is just the appearance that No. 7 might be expected to have presented if the miserably bad work of the reparation had already fallen away. Lest it should be thought that this explanation takes too great liberties with De Laborde's drawings, it may be added that he cannot be treated as an absolutely reliable guide. He draws, for instance, the octagon No. 8 three times, and each time differently.

In the interior of the church on either side of the nave there were a bewildering number of stone blocks of various shapes, sticking up out of the ground. On clearing them out I found the original oblong piers of the arcades resting on carefully worked bases, and all in place except one which had fallen. The other stones served as supplementary piers. In every case one had been set against the inner side of the original piers facing the nave (one of these has fallen) and one, or two, against the outer side facing the aisles (several of these have fallen). The supplementary blocks were mostly lintels or door jambs taken from other buildings; in one instance (the second from the E. on the N. side) a large irregular pier of masonry projected from the oblong pier. In the masonry added to the original engaged N.-E. pier was built the base of a round column, about half the size of the bases in front of the exedra. Two-thirds of the height of these blocks and piers were concealed by ruins and earth overgrown with grass, that is to say a long period of time must have elapsed since the vaults fell and the earth began to silt in among the stones. I believe the nave of No. 7 to have been repaired like that of No. 1 with supplementary arcades standing within the old arcades (the engaged piers at either end of the later arcades point to this conclusion) and the aisles to have been reconstructed like those of Nos. 1 and 6 with transverse arches and barrel vaults at right angles to the vault of the nave. Because of the analogy presented by the other two churches and by No. 21 (see below) and also because I found no trace of a mihrab in the S. wall (see No. 15), I conclude that the rebuilding, bad as it was, was not Moslem but Christian work. Moreover, there is no reason to suppose that at any time Maden Sheher possessed a

Mohammedan population able and anxious to restore such large buildings as the four churches in question.

The masonry of the exedra is the best work in the Kara Dagh, though that of No. 1 does not fall far short of it in excellence. In the narthex walls where the facing remains, as on the N. and E. sides, the masonry is also extremely good and compares well with No. 1. Even inside the narthex chambers, with the exception of the top storey, the coursing is perfectly regular and the stones carefully dressed. The exedra presents an interesting series of finely cut mouldings. The inner moulding running round the W. arch (the same profile is used under the spring of the arch, and round the interior of the apse) resembles the string-course across the façade of No. 1. In the band that forms the upper member, the lower edge is clearly filleted as it is in No. 1 (Fig. 54 *a*). In all mouldings the notch seems to be nothing but a degenerated fillet; for example, the moulded string-course round the outside of the apse of No. 7 (Fig. 54 *b*) is no more than the familiar concave profile, but instead of the usual notch in the outer members there is a fillet on either side of the groove. Below the moulded course there is a plain projecting band round the apse which corresponds to the plain band of No. 1. There are no windows in the exedra, an additional proof that it did not form part of a church. The cavetto moulding under the arches of the N. and S. doors (Fig. 54 *c*) is also cut with exceptional care. A moulding (Fig. 54 *d*) of which I saw several fragments lying among the ruins of the church belongs to the same family as the moulding in the W. doorway of No. 1; it is the **S**-shaped cyma. The capitals of the engaged piers of the narthex (Fig. 54 *e*) are closely related to the capitals in the original arcade of No. 1. The bases of the piers in the nave are worked with an astragal between two bands (Fig. 54 *f*). The lintel of the W. door is decorated with four bands (Fig. 54 *g*). The height of the E. aisle can be seen on the E. wall of the narthex where the plaster that covered the wall inside the aisle is still visible. The aisles must have been very low in comparison with the narthex; probably the nave was raised above them and lighted by windows in the upper walls as in No. 1. No. 1 seems to be a connecting link between the exedra and the church of No. 7,

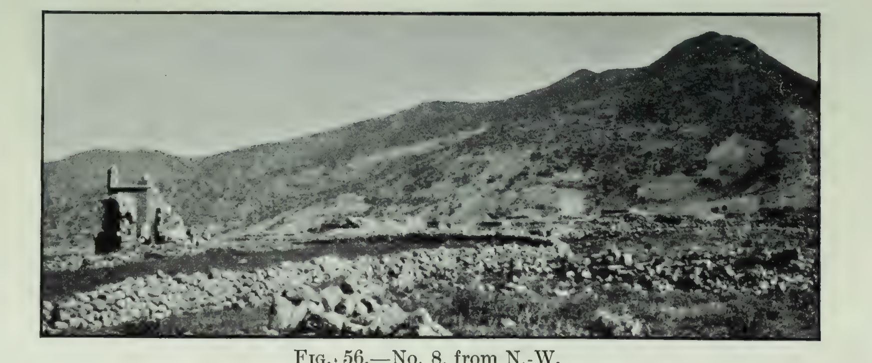


Fig. 56.—No. 8, from N.-W.

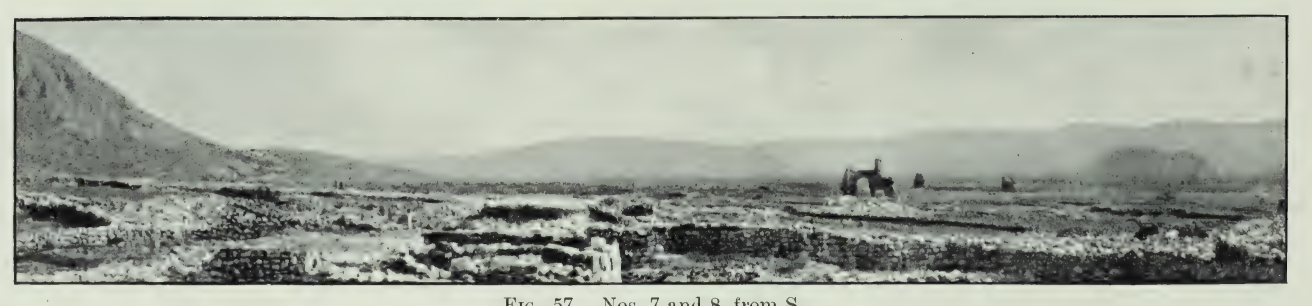


Fig. 57.—Nos. 7 and 8, from S.



Fig. 58.—No. 8, from N.-E.



Fig. 59.—Interior of No. 8, from S.-W.

for it exhibits mouldings that are to be found on both of them. The three examples from the exedra are of a rather better type than any others in the Kara Dagh (except the cornice of the mausoleum, see below), but the difference in date between the exedra, the church No. 7, and the church No. 1, cannot be great. The character of the masonry in the three buildings warrants this conclusion.

In the spring of 1909 I visited a number of churches in the Djebel Tur Abdin, S.-E. of Diarkekr. The whole group, which I date in the fifth century, will be published in von Berchem and Strzygowski's book on Amida. The churches all stand in an enclosed court. In the E. wall of this court there is not infrequently a small exedra, independent of the church. I inquired of the Jacobite clergy, by whom the churches are still used, what was the purpose of these exedras, and was told that originally the week-day service had been celebrated in the exedra while the church itself was only used on Sundays. I think it doubtful whether the exedra of No. 7 can be assimilated to those of the Tur Abdin, but in the absence of other suggestions, the existence of separate exedras attached to very early churches is worth noticing.

No. 8

Kleinasien: Photograph by Crowfoot, photograph and plan by Smirnov.
Holtzmann: Plan, elevation and details.
De Laborde: Three drawings.

I reproduce Smirnov's plan with the addition of a small niche in the interior of the E. wall of the northern porch (Fig. 55). No. 8 appears three times in De Laborde's sketches. In the figure in Kleinasien, page 25, it is seen from the N.-W.; it seems to have been quite perfect in 1826. (Fig. 56 gives its present state from the same aspect.) The building to the right of it is the narthex of No. 13 which has now fallen into ruins. In the background of the figure on page 26 (Kleinasien) the octagon again appears drawn from the N.-W. (*cf.* Fig. 53), but at a slightly different angle which throws the façade of No. 13 to the left of it. The relative position of the two churches is more correctly given here than in the other picture. On page

103 (Kleinasien) it lies in the middle distance with the narthex and exedra of No. 7 immediately to the right of it in the distance, and the narthex of No. 13 still further to the right in the foreground. (*Cf.* Fig. 57, a view taken from the same point as De Laborde's drawing.) This view is taken from the S. The drawing of the octagon on pages 26 and 103 is incorrect. In the first it appears to have eight projecting arms, instead of four; in the second the lower part is represented without the cross-shaped projections, and the upper part is round instead of octagonal. On page 25, No. 8 is the principal object in the picture, but even here there are certain errors. De Laborde draws the window arches and the relieving arch over the W. door in bold horse-shoe curves; the W. door has fallen, but the arches of the lower windows are not horse-shoed (Fig. 58). The upper windows had all fallen in 1905, but Crowfoot's photograph gives the spring of the N. window arch which looks as if it had been slightly horse-shoed. No part of the dome is standing, though large fragments of the cement and rubble of which it was formed are lying among the ruins. De Laborde gives its exterior aspect as a high octagonal drum, each side broken by a window. The dome itself is covered by a pointed eight-ridged roof.

The masonry both inside and outside is not inferior to that of Nos. 1 and 7. In some of the exterior courses the height of the stones is greater than their width, a system which I have not observed in any church where the work is as good as it is here, except in No. 21, though it is to be seen in one or two poorer examples (*cf.* No. 17). The interior (Fig. 59) has been plastered and frescoed; considerable fragments of fresco are still visible inside the northern porch.

There are five different mouldings on this church. Strzygowski has already noticed the Gothic profile of the dripstone that ran round the outside below the upper windows (Fig. 60 *a*). I know of no other moulding in the Kara Dagh that can be compared with it. The cornice round the outside of the apse with a bead under the long curve of the cavetto (Fig. 60 *b*) falls into the group to which the mouldings of Nos. 1 and 7 belong. The moulding under the spring of the lower window

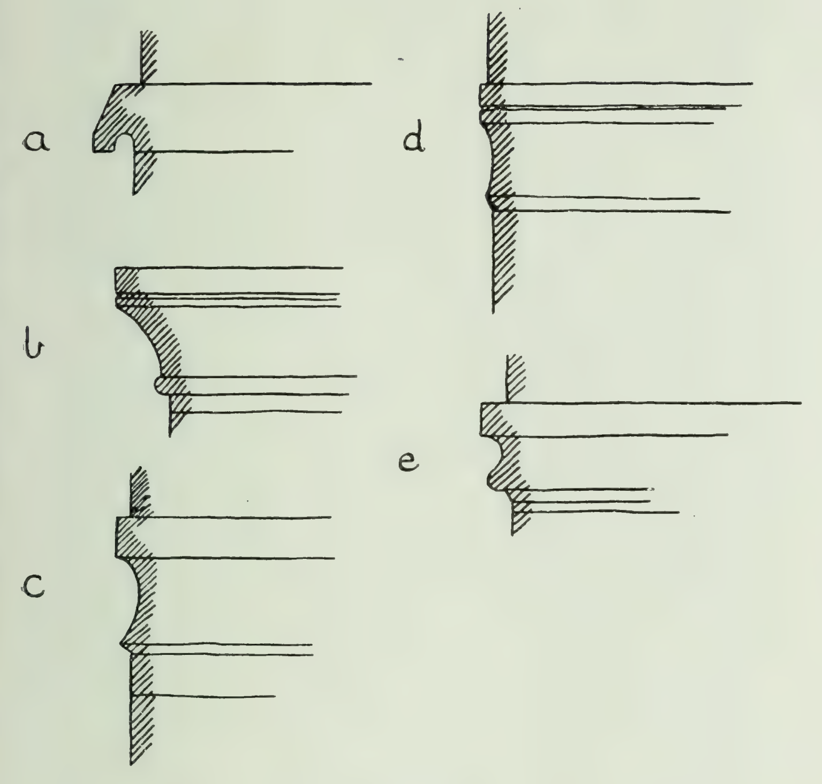


Fig. 60.—No. 8.

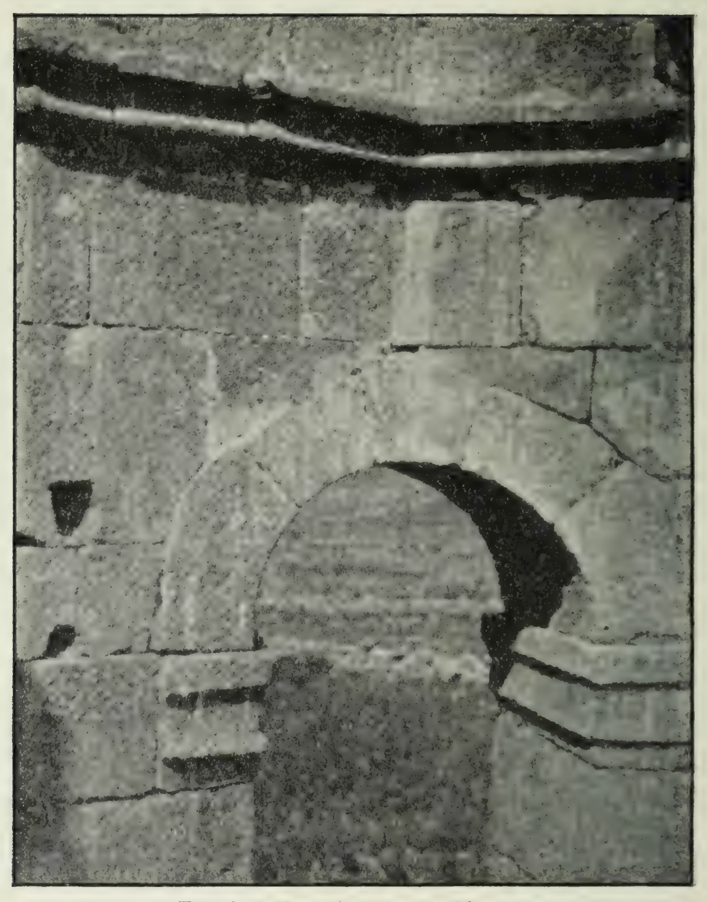


Fig. 61.—No. 8, interior mouldings.



Fig. 62.—No. 8, W. door.

Fig. 63.—No. 10.



Fig. 64.—No. 10, from S.-W.



Fig. 65.—No. 10, exterior of apse.

arches (it is carried round the exterior of the apse) is a filleted cavetto, the lower edge of which is brought almost as far forward as the upper (Fig. 60 *c*, and Fig. 61). Very similar to this is the moulded string-course round the apse under the windows (Fig. 60 *d*), but the cavetto is shallower and the upper band is notched. Finally there is a string-course which is confined to the interior (Fig. 60 *e*, and Fig. 61), where it runs round the church above the windows. It is deeper in cutting than the others, so that it must have been effective even in a half-light. An upright **S**-shaped cyma is its principal feature. On the lintel and jambs of the N. door are a series of bands very like the decoration on the door of No. 9. Above the lintel is a straight relieving arch of three stones; the same occurs over the S. door of No. 21 and will there be illustrated. The W. door bears a far more elaborate decoration (Fig. 62). (A cast of the corner of the lintel can be seen in the South Kensington Museum.) A bead and reel runs round the inner edge of the door mouldings; the deep outer cyma is filled with flutings which are replaced at the angles by a palmetto motive. Sir W. Ramsay notes that the mouldings in the N.-W. window are roughly cut away in order to receive some sort of screen.

No. 9

See No. 6.

No. 10

Kleinasien: Mentioned by Crowfoot as "a large octagonal church"; sketch plan by Smirnov.

Davis describes No. 10 in his Life in Asiatic Turkey, p. 310.

Hübsch, Altchristliche Kirchen, gives the plan of a polygonal church at Derbe, which may possibly be intended to represent No. 10.[1]

Smirnov's plan is not quite correct. It was almost impossible to take accurate measurements of the church without clearing out the interior, the difficulty being increased by the fact that here, as everywhere in the Kara Dagh, the building is very irregular, so that the W. door, though it is intended to lie

[1] Strzygowski in his Dom zu Aachen has indicated the possibility that Hübsch's church at Derbe may be the same as our No. 10.

opposite to the apse, is not exactly central with it (Fig. 63). No. 10 is a fourteen-sided polygon, one of the sides being occupied by a projecting apse (Fig. 64). Four of the sides were broken by round-headed windows, the W. side by a door. Davis mentions a small door to the N. of the W. door; I did not see any traces of it, but the N. and N.-W. faces of the wall are much ruined. There is a large breach in the apse indicating the place of Davis's "four small square windows under the cupola of the apse" (Fig. 65). On either side of the apse are engaged piers whence sprang arches of which the western ends rested on two masonry piers (Fig. 66). The W. side of these piers is prolonged with an outward slant in one case to the N. in the other to the S. Beyond them to the W. stand on either side two double columns and another masonry pier. The two western piers were so much ruined that I am not certain that I have their ground plan absolutely correctly, but the error cannot be large. The four piers and four double columns formed an irregular oval inside the church. The western piers were connected by arches with engaged piers that stood on either side of the W. door (Fig. 67). Three arches on either side no doubt connected the piers and double columns, thus forming the pentagonal screen mentioned by Davis. Outside this screen, says he, "is an exterior wall with small arched windows" (I have alluded to these, they were four in number) "and the space enclosed between this and the exterior screen is in two storeys, which have small square windows looking inwards". The line of the vaults which supported Davis's upper storey can still be traced on the inside of the exterior wall to N. and S. of the apse (Fig. 68). The beginning of the outer wall of the upper storey can also be seen on either side of the apse (Fig. 65). The inner walls of the upper storey must have been carried up above the arches of the screen into an oval-shaped dome. This is of course conjecture, but it is difficult to see what other way of roofing the church would have occurred to an architect of Maden Sheher. Davis speaks of the upper storey as lighted by "small square windows looking inwards". This can bear no other interpretation than that the upper chambers were lighted not by windows in the exterior wall but



Fig. 66.—No. 10, interior from N.-W.



Fig. 67.—No. 10, interior, showing engaged columns on either side of W. door.

Fig. 68.—No. 10, interior from S.-W.

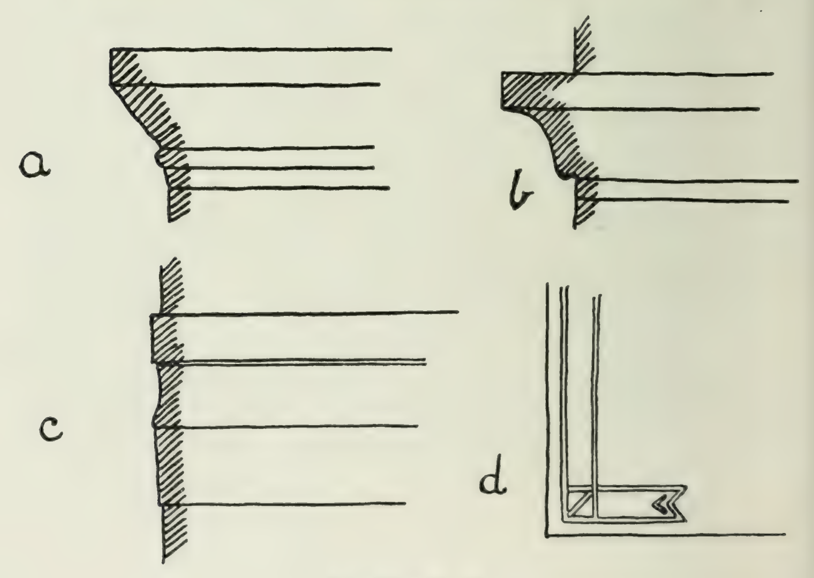


Fig. 69.—No. 10.



Fig. 70.—No. 10, moulding on exterior of apse.



Fig. 71.—No. 10, window moulding.

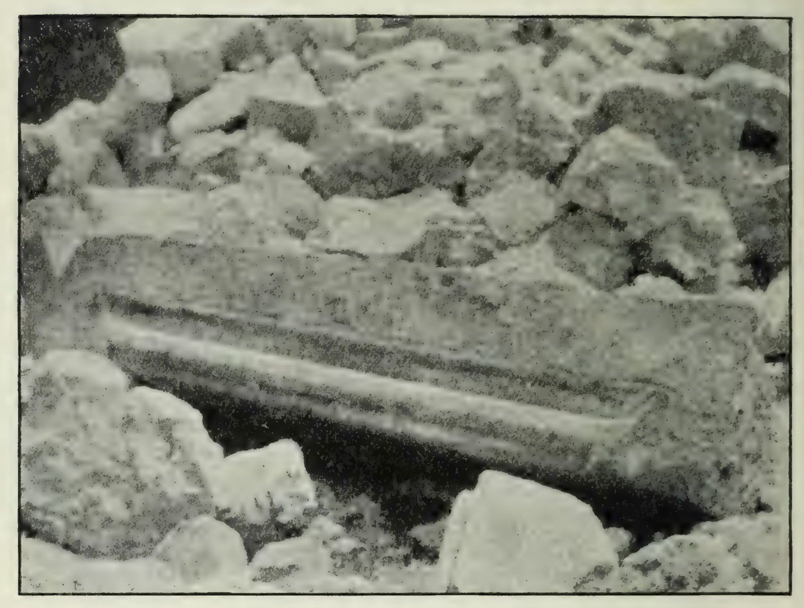


Fig. 72.—No. 10, lintel of W. door.



Fig. 73.—No. 10, jar found near S. wall, inside church.

by windows in the interior wall above the arches of the screen. Now the space under the dome into which the small square windows opened would have been quite dark unless there had been windows in the drum. Viewed from the exterior, this high drum, broken by windows, must have risen above the sloping roof that covered the vault of the upper storey, and the top of the dome would be concealed by a pointed roof.

The masonry is not of the best Maden Sheher type; the stones are neither evenly coursed nor well fitted. In the interior the work is extremely rough. It has all been covered with plaster and the apse shows traces of fresco. The faced stones of the exterior are very thin and the rubble in the middle of the wall proportionately thick. It is, however, unusually poor stuff; even in the apse no squared stones are used in the core of the wall. The capitals of the engaged piers are so poor (a splayed member under a band) as to suggest that they too were covered with plaster, and the same applies to the moulding round the top of the eastern piers. The inside of the arches of the screen were also plastered. On the exterior of the church there are three mouldings. One is a cornice round the exterior of the apse (Fig. 69 *a*), a small fragment of which can be seen on either side of the apse where it joins the side walls. It is a splay face with a bead under it. The second (Fig. 69 *b*) is a string-course which begins at the angle of the apse, one course below the point where the cornice ends, and was presumably carried all round the church. The pendulous cyma has a deep projection but is wretchedly worked. The third (Fig. 69 *c*, and Fig. 70) is a string-course on the lower part of the apse. It belongs to the type of concave moulding commonly found in this position, but the lower edge of the groove terminates in a short cyma-like curve. The upper band is filleted. Round the windows (Fig. 71) ran a shallow groove which turned outwards at a right angle at the corners and finished in the fish-tail that has already been noticed in No. 4. On the ground N.-E. of the church I found two blocks which had belonged to a square-headed window 0·29 metres wide (Fig. 69 *d*). The moulding differed slightly from that on the S.-E. window. In the latter two small crossed bars fill the circle at the angle of the groove, and the fish-tail is

rounded; in the square-headed window the fish-tail is pointed and there is only one bar in the circle. These stones may have belonged to one of Davis's "four square windows under the cupola". I may note that a square window in the apse is unknown elsewhere in the Kara Dagh. The lintel of the W. door lay among the ruins (Fig. 72.) It is worked with a bead between cavettos. The oblique bars described in No. 4 cross the corners of the outer cavetto; a medallion with a Greek cross is cut in the centre of the upper band. The work is very poor.

In clearing out the interior of No. 10 we found below the level of the floor a number of large earthenware jars rather over a metre high (Fig. 73). The positions in which they stood are indicated on the plan; there may be more of them towards the W. end of the church. The earth with which they were filled was black and oily-looking. Each jar was covered with an earthenware lid and furnished with a spout formed of bits of earthenware pipe fitted into one another. The pottery was unglazed and coarse. Jars and pipes were marked with rings of incisions. The inside of the jars was blackened either by fire or by some oily liquid which they had contained and partly absorbed. One of the men working for us (a Tatar) declared that in his country he had seen similar jars fitted with tubes used for baking bread, but I cannot control his statement.

No. 11

Kleinasien: A ground plan and notes by Smirnov.
Holtzmann: Ground plan and details.

The cruciform church No. 11 must have fallen considerably since Smirnov saw it (Fig. 74). Nothing now stands but a portion of the N. wall of the nave and of the W. wall of the N. transept (Fig. 75). One course of the W. façade remains and a bit of the door jamb. By clearing away the ruins it was possible to make out the ground plan. The nave had been barrel vaulted; no doubt the transepts were similarly roofed. On the analogy of other cruciforms it may be concluded that there was a dome over the centre of the cross. The apse is

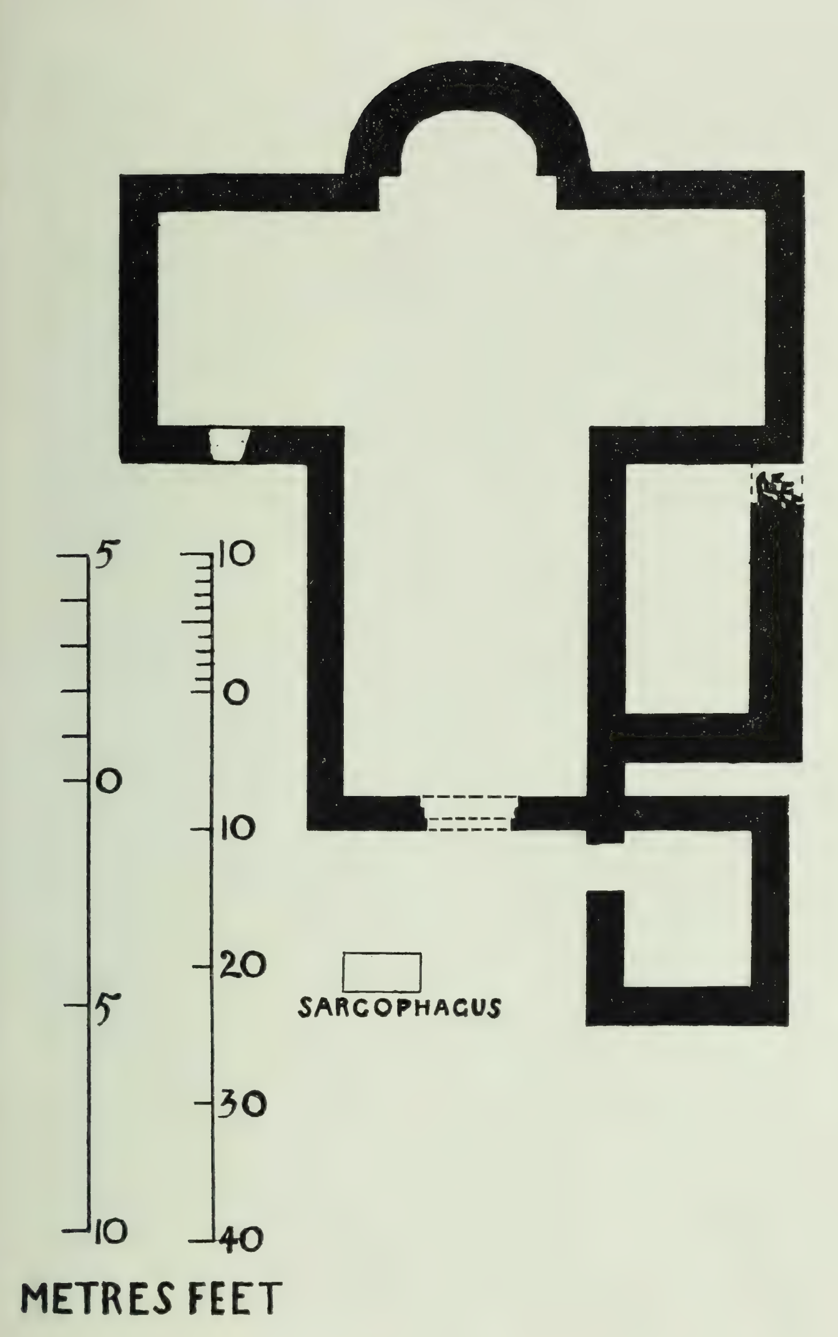


Fig. 74.—No. 11.



Fig. 75.—No. 11, from N.-W.



Fig. 76.—No. 11, interior of N. wall of nave.

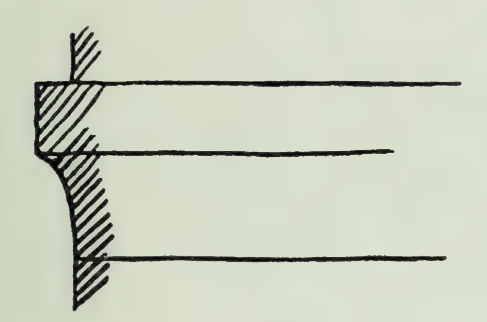


Fig. 77.—No. 11.

Fig. 78.—No. 11, W. door jamb.



Fig. 79.—Lintel near No. 21.



Fig. 81.—No. 21, seat round apse.

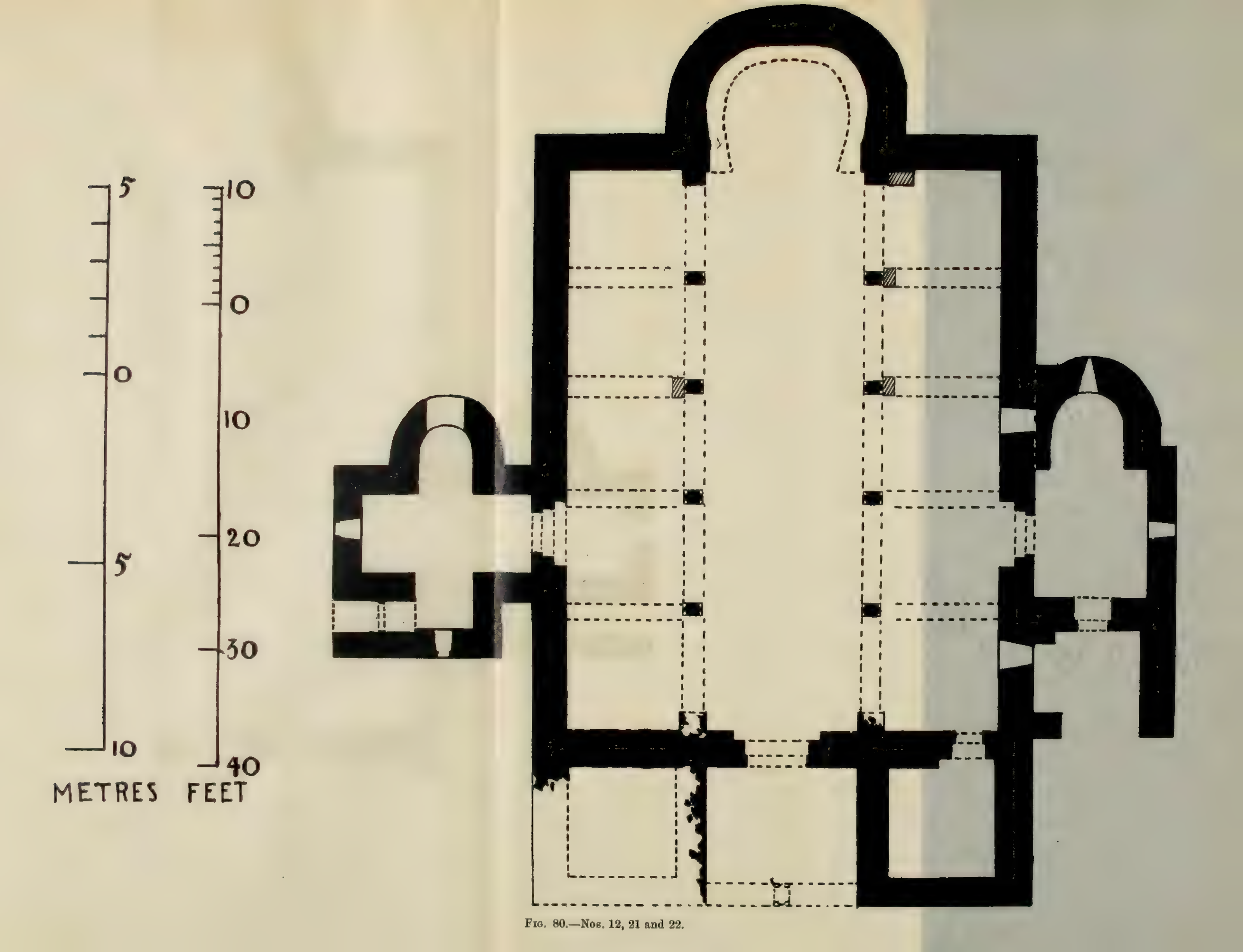
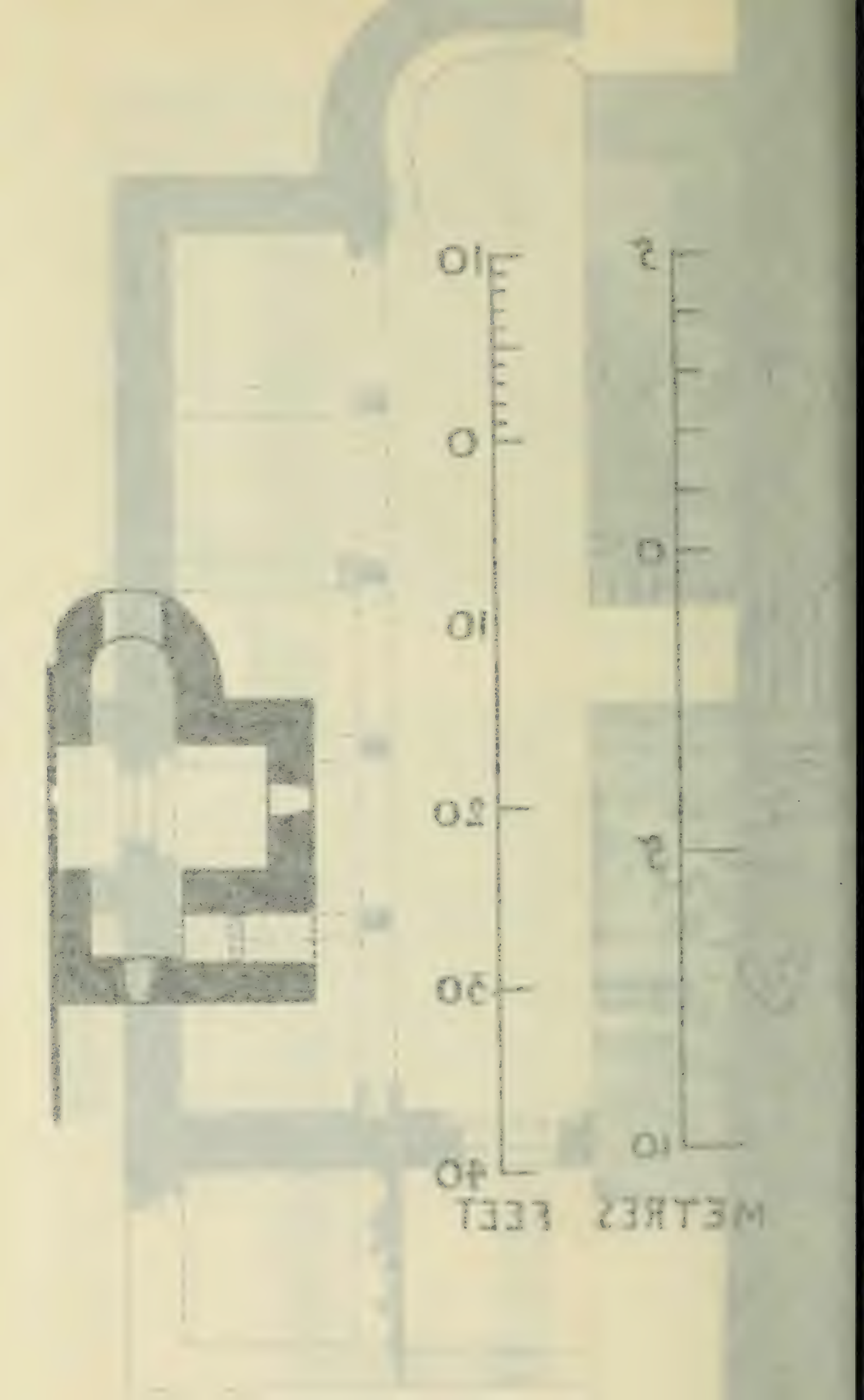


FIG. 80.—Nos. 12, 21 and 22.



shallow and has small niches in the wall at the western ends. I could not determine whether Smirnov is right in putting doors in the transepts, but the square-headed window in the W. wall of the N. transept can still be seen. A small chamber lies at the S.-W. angle of the church with a door at the N.-E. corner. I cleared it out but found no grave in it. There is, however, a stone sarcophagus W. of the church, and it is probable that No. 11 was memorial in character. There is another much ruined chamber to the W. of the S. transept, but I think it is a later addition, possibly not of the Christian period. The church must have been used as a house or cattle pen, for there are rough holes for beams in the N. wall above the moulding (Fig. 76). The masonry is exceptionally massive. The lower blocks on the outside of the N.-W. angle of the nave are 1·80 m. and 1·90 m. in length. The stones of the upper courses are not so large. Inside, they are yet smaller and unevenly laid; no doubt they were covered with plaster. The roughly worked cavetto string-course on the inside of the wall had also been plastered (Fig. 77). The door jamb was decorated by four bands (Fig. 78). A monogram cross which Smirnov noticed on the N.-W. angle of the wall has disappeared with the falling of the wall. I know of but one other example of the monogram cross in Maden Sheher, and that is on the lintel of a building W. of No. 21 (Fig. 79). (Pridik mentions a monogram cross on the apse of No. 3.)

Nos. 12, 21, and 22

Kleinasien: Smirnov gives a plan of No. 12, and marks No. 21 in his sketch map of the town, but he does not mention that they are connected together, and he is incorrect in stating that the southern chapel, No. 22, has no apse.

No. 21 is a church with a chapel on either side of it (Fig. 80). The church shows signs of having been destroyed and restored in the Christian period; the chapels are certainly later than the original church. The N. chapel (No. 12) may have been added either before or after the restoration, the S. chapel (No. 22) can scarcely have been built except when the church was in ruins, either at the period of the restoration or after it had fallen a-

second time. After the Christian period, No. 21 was filled with the rude dwelling-houses of the nomads, the partition walls of which can still be seen in the nave and S. aisle. (We did not clear out the N. aisle because the great masses of fallen vault which lay there would have been difficult to remove.) The original church was of the type of No. 1, but much shorter. Little remains of it except the foundations and a part of the S. wall. Arcades of five arches, carried on four double columns and two engaged piers, divided the nave from the aisles. As in No. 1, both the N. and S. ends of the narthex were walled off into separate chambers, which could be approached only from the N. and S. aisles. The W. entrance into the narthex must have been the customary double arched doorway, but the central column has disappeared. A square-headed doorway led from the narthex into the nave—one of the jambs is standing. I conceive the nave and aisles to have been roofed originally with parallel barrel vaults. There were doors in the N. and S. walls and small, wedge-shaped, square windows, of which two could be made out in the S. wall. The apse was horse-shoed in plan. On clearing it out we found round the inside a low stone bench with a step below it (Fig. 81). In the centre was a stone, moulded on the outer side, forming a raised seat. Sir W. Ramsay discovered remains of mosaic in the floor of the apse, but only those parts which lay immediately under the stone bench were preserved. Interlaced circles, outlined in dark blue, had been worked upon a yellowish white ground. The pointed ovals formed by the intersection of the circles were sometimes filled in with dull red (Fig. 82 *a*).

At a later period the vaults of the aisles had fallen and had been repaired in the same manner as in Nos. 1, 6 and 7. Against two of the original double columns of the S. aisle, and one in the N. aisle, we found the outer transverse piers which had supported the arches of the later barrel vaults of the aisles. Against the E. wall of the S. aisle the engaged pier of the later arcade can also be seen, and the large fragments of plaster and rubble work that blocked the N. aisle had formed part of a series of short parallel barrel vaults set at right angles to the nave. (The two western double columns of the N. aisle were concealed under

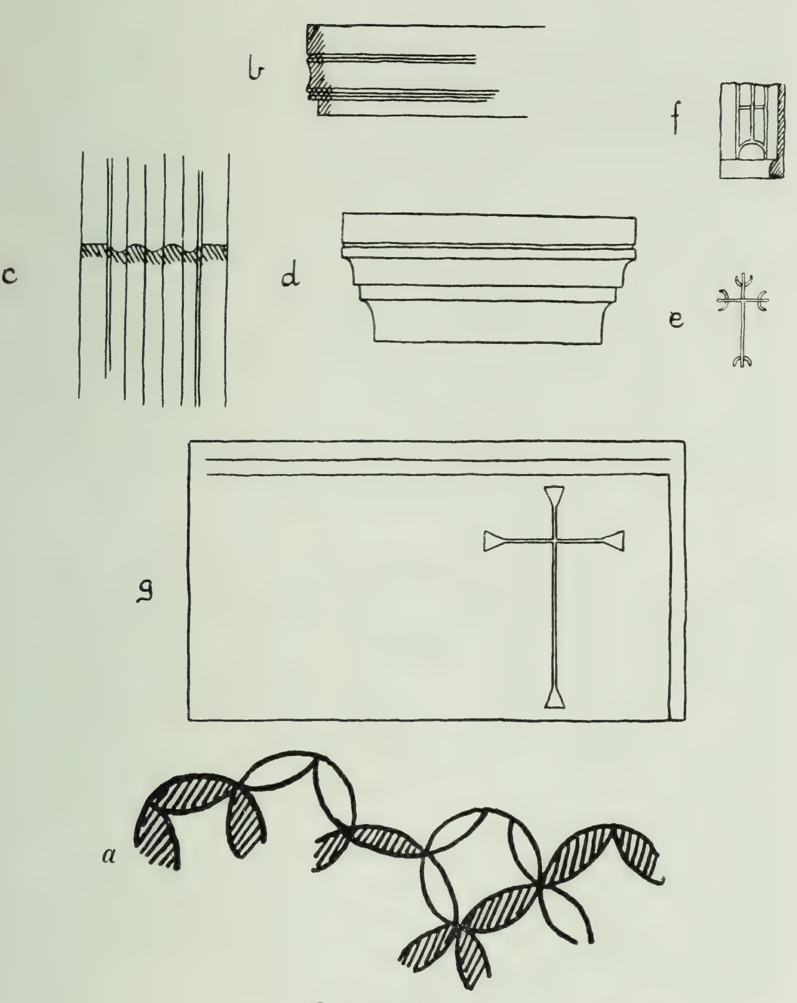


Fig. 82.—No. 21.

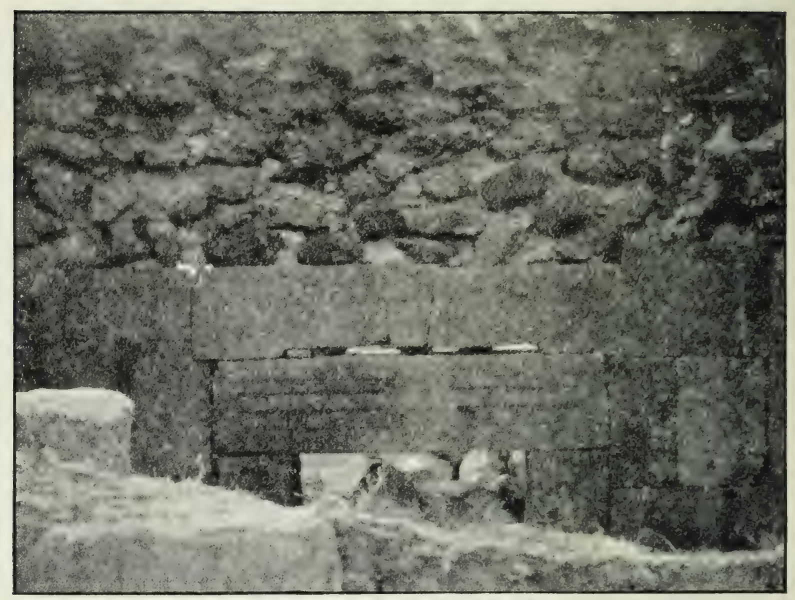


Fig. 83.—No. 21, exterior of S. door.

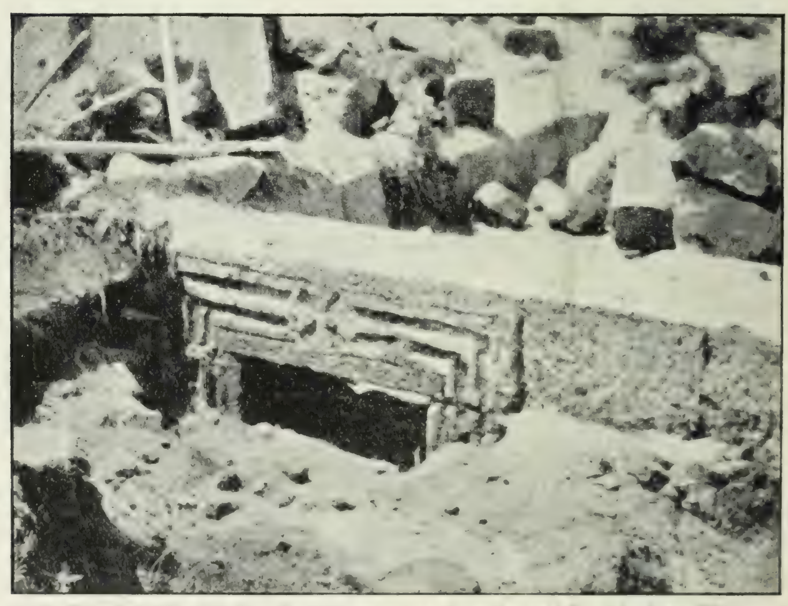


Fig. 84.—No. 21, door between narthex chamber and S. aisle, from W.

these masses of fallen vault, in the case of the two corresponding columns in the S. aisle the later piers had been cleared away to make room for the partition walls of the houses, from which we may conclude that in the S. aisle at least the later vaults had fallen before the nomads occupied the church.)

Very little remains of the masonry of No. 21, but it would seem to have been of the same character as that of No. 8. In some of the courses of the S. wall the stones were higher than their width ; this can be observed round the S. door (Fig. 83). There are no mouldings, except those on the door, which can be attributed with certainty to the original church. I saw among the ruins a few fragments of a flat moulding (Fig. 82 *b*) similar to that which was used to form the cornice of No. 22. The jamb of the W. door exhibits a wave-like moulding of two beads between bands notched on the inner edge (Fig. 82 *c*). On the N. and S. doors the mouldings are yet shallower (Fig. 83). They are composed of a bead between two cavettos with a notched band on either side and a medallion and cross in the centre of the lintel. The corners of the lintels are unfinished. The same moulding, more deeply cut, can be seen on the E. side of the door leading from the S. aisle into the southern chamber of the narthex (Fig. 84). Here, however, the corners of the lintel are worked. Over the lintel of the N. and S. doors is the same straight relieving arch that has already appeared over the N. door of No. 8. These lintels were intended to be seen from the outside, but the doors were subsequently incorporated in the chapels. (*Cf.* No. 32 where the side chambers are contemporary with the rest of the building, and the mouldings on the doorways are placed inside the church.) We found several of the capitals of the double columns. They are a variation of the capital type of No. 1 with two cavettos separated by a band (Fig. 82 *d*). Two other tiny fragments were picked among the ruins. One of these bore an incised Latin cross with branching arms (Fig. 82 *e*), the other was an incised imitation of the familiar concave moulding ending with a semi-circular filling, but the stone was left flat where the groove should have been and cross bars were incised on it (Fig. 82 *f*). It terminated in a raised base. The partition walls within the nave and S. aisle

were of the roughest type of masonry, no uniform thickness being preserved in any one of them. They were built of cut stones and fragments taken from the ruined church or other buildings and laid together without mortar. We found in the apse a stone slab (Fig. 82 *g*) decorated at one end with a Latin cross; it can be seen at the left-hand corner of Fig. 81. A similar slab has already been mentioned in the description of No. 3.

The N. chapel No. 12 stands almost perfect. It is a small cruciform, the arms barrel vaulted, the centre covered with a dome slightly oval in plan. The eastern arm is occupied by a stilted apse, the W. wall of the western arm is prolonged so as to form a porch to the N. door (Fig. 85). The chapel is fitted on to the N. wall of No. 21, so that the N. door of the church opens into the S. transept of the chapel. There is no indication here as to the period at which the chapel was added to the church, except the fact that the barrel-vault of the S. transept would not in any way interfere with the vaulting of the N. aisle of the church, either before or after the restoration. It may, therefore, be inferred that the chapel was built when the church was standing, before or after restoration. If there were windows in the N. aisle of the church corresponding to the windows in the S. aisle they would not have been blocked by the chapel walls. No. 12 was lighted by a pair of horse-shoe arched windows in the apse (the column between them has fallen, Fig. 86), and by two square-headed windows, one in the N. and one in the W. arm. All the barrel vaults are horse-shoed. The dome was hung in a square tower, but the interior construction was not like that of the dome of No. 9. A pendentive, curved so as to round off the angle, fits into the spandrils between the arches (Fig. 87). The masonry is good, and solid, the stones are large, well-faced and well-fitted on the exterior; the irregularities of the interior have been concealed by plaster. The horse-shoed barrel vault of the porch, with a narrow rib running along the top of the arch, is built with the utmost care (Fig. 88). The decoration of the door within the porch is interesting. The lintel and jambs are carved with a running pattern of pointed leaves set point to point so as to form a zig-



Fig. 85.—No. 12, from N.



Fig. 86.—No. 12, exterior of apse.



Fig. 87.—No. 12, interior.

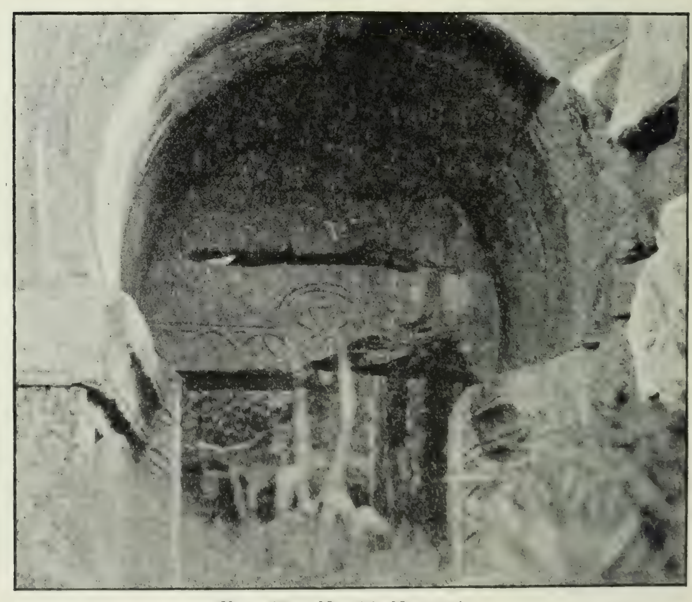


Fig. 88.—No. 12, N. porch.

zag (*cf.* No. 4). In the spaces between the leaves are raised dots (Fig. 89), in the centre of the lintel is a Greek cross in a medallion, the dots re-appearing on the arms of the cross and in the spaces between them. The straight relieving arch re-appears over the lintel. The outer face of the arch of the porch is decorated with a flat concentric moulding turning off at right angles at the corners and ending in a fish-tail. The same very flat moulding is carried round the square windows (Fig. 90, and Fig. 91 *a*). An oblique bar crosses the shallow groove at the upper corners, the lower corners form a square filled by two crossed bars, the moulding turns off at right angles and ends in a fish-tail (*cf.* the square window of No. 10). A cavetto moulding runs round the exterior of the church below the windows and is continued into the porch below the spring of this vault, where it breaks awkwardly into the leaf moulding of the door (Fig. 91 *b*, and Fig. 89. The characteristic filling of the cavetto at the end of the moulding can be clearly seen). The same moulding is used as a cornice round the apse. Inside the chapel there is a moulding placed below the spring of the barrel vaults. It is a simple splay face, which has been covered with plaster (Fig. 91 *c*).

No. 22, on the S. side of No. 21, is different both in plan and in workmanship from No. 12. It is a small chapel with a stilted apse and a narthex. It is built against the church, the S. wall of No. 21 forming the N. wall of No. 22, and the barrel vault that roofed the nave of the chapel can only have been fitted on to the church wall after the church itself was in ruins (Fig. 83). The wall of the apse blocks one of the windows of the church; another opens into the narthex. (It is possible, however, that what looks like a narthex was merely a small unroofed space before the W. door; most of the vault of the nave has fallen, but the semi-dome of the apse is perfect.) The chapel is roughly built of re-used stones. A flat moulding runs round the top of the apse but the stones do not fit together and were not cut for the place they now occupy. The same applies to a moulding round the inside of the apse under the semi-dome. On the outer wall of the apse, above the narrow slit of the window, is a bit of stone carved with a medallion and a Greek cross. There are

projecting knobs between the arms of the cross. But this, too, is a re-used stone, for the medallion is the central decoration of a flat moulding, which breaks off abruptly at either end of the stone. It is extremely ill-worked. The vault of the nave was built of rough stones, not squared, set in plaster (Fig. 83). Neither this vault nor the semi-dome of the apse were faced with dressed stones.

Immediately to the W. of No. 21 there is some cultivated ground cleared of all masonry. Beyond this to the W. is a large complex of buildings, the lintels of the doors being decorated with crosses. (It is here that the monogram cross occurs (Fig. 79).) This may have formed part of a monastery connected with the church.

No. 13

Kleinasien : Notes by Smirnov.
De Laborde : No. 13 appears in all his three drawings.

This church has now fallen into complete ruin, but Smirnov saw and described the fine masonry of the N. wall, a moulding with a cyma profile that ran along the bottom of the wall, and two medallions with crosses on the upper part of the wall. Only the foundations of the nave can now be seen and, in the narthex, the plaster and rubble core of the walls from which the facing stones have fallen. On the S. side of the narthex it is still possible to make out from the inner walls the upper storey which Smirnov mentions. De Laborde represents No. 13 to the right of No. 8, on page 25, Kleinasien, in the distance to the left of No. 8, on page 26, Kleinasien, and in the foreground to the right of No. 8, on page 103, Kleinasien ; his drawings differ slightly from one another. On page 26 No. 13 is too far off to admit of detail. On page 25 he gives it with a ruined doorway above which runs a string-course forming a sill to the windows. He places a two-light window in the N. wall and groups of three-, four- and three-light windows in the W. wall. Above them there is a second string-course and a high blank wall forming the upper part of the façade. On page 103 the door is again in ruins, there are no windows in the S. wall

Fig. 89.—No. 12, N. porch.

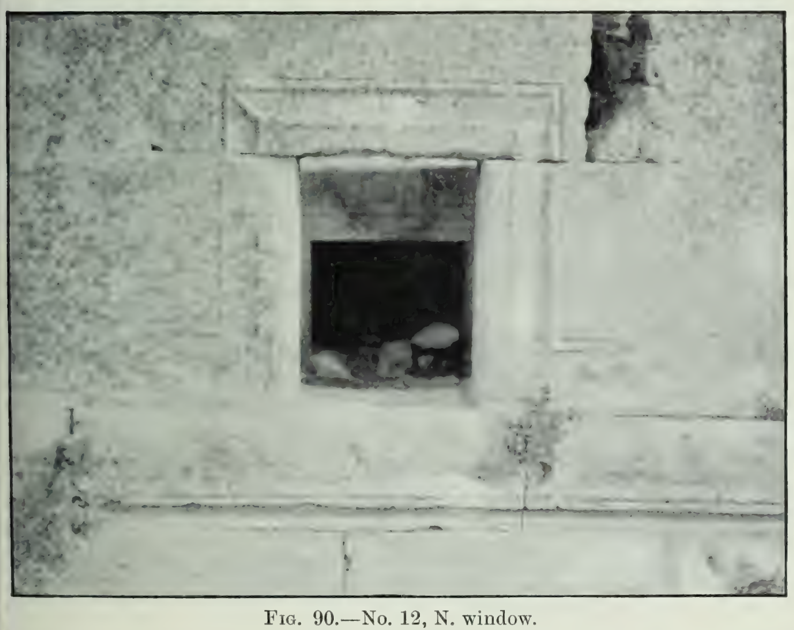


Fig. 90.—No. 12, N. window.

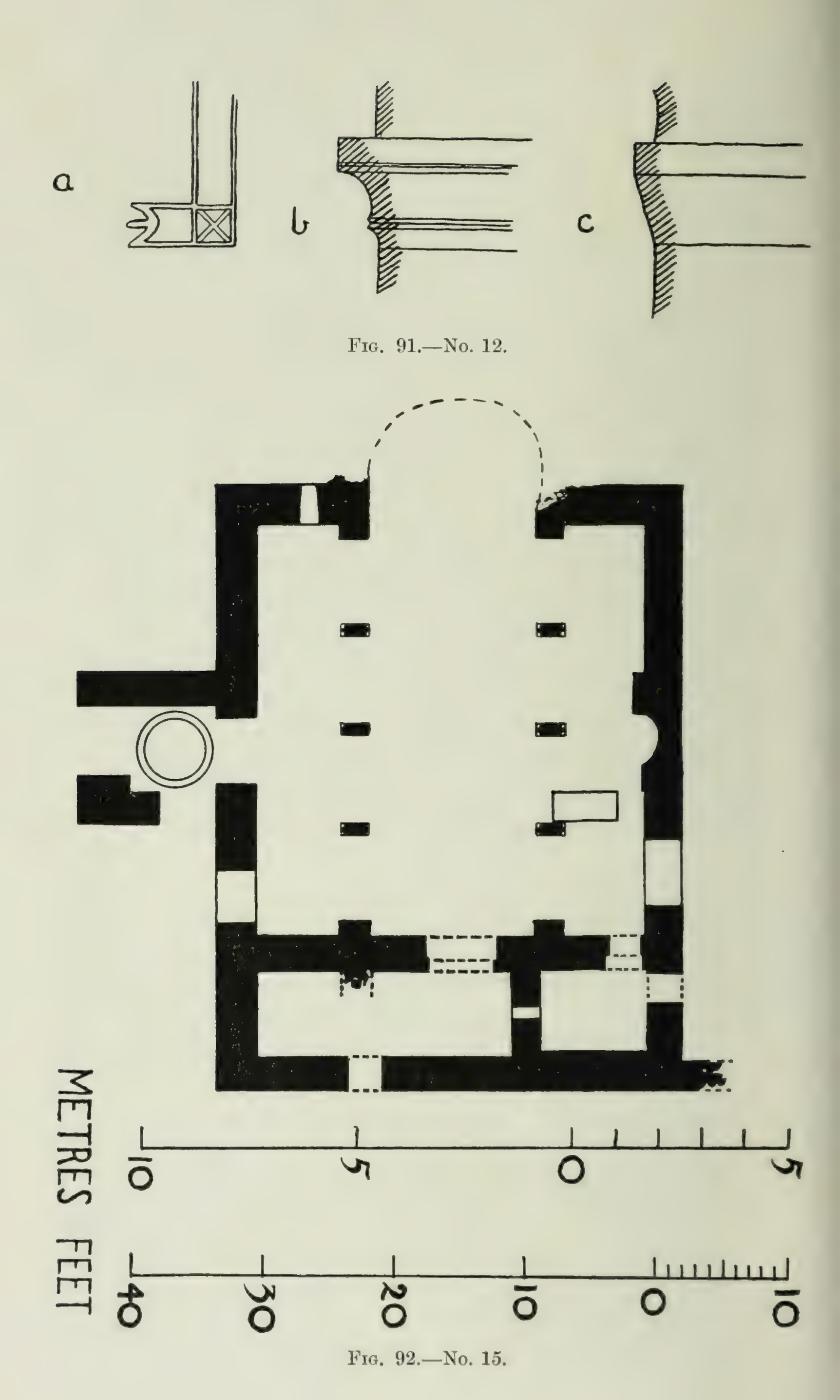


Fig. 91.—No. 12.

Fig. 92.—No. 15.

corresponding to the two in the N. wall; in the W. wall there are three groups of two, three and two windows on the first storey and seven windows on the second storey, placed at equal distances from one another, while two more are to be seen in the S. wall on the second storey. It is impossible to determine which drawing is correct, but as I have already indicated, the ruined doorway of No. 13 should perhaps be transferred to No. 7. No narthex now standing in the Kara Dagh shows groups of windows such as those drawn by De Laborde. On page 25 he has placed No. 13 too close to No. 8. On page 103 it is too far away, and the whole group of churches, Nos. 13, 7 and 8, lies too near the slopes of Maden Dagh.

The inside of the church has been partially cleared of ruins and planted with melon beds; we could not therefore do any work there without causing annoyance to the peasants. The church is large, with double columns of blue limestone dividing the nave from the aisles (*cf.* No. 4). I also noticed that the stonework was good; the lower part of the interior of the S. wall was visible and for an interior wall the stones were carefully laid. There are fragments of very rough walls in the N. aisle, as though the church had been at some very late period filled up with houses or cattle sheds (*cf.* No. 21). Among the ruins of the narthex lay the lintel of the W. door decorated with a groove with oblique bars across the corners, the whole cut very shallow (*cf.* No. 4, N. door). From the few indications that remain I should judge that the church was a true basilica and belonged to the later group of the buildings of Maden Sheher.

No. 14

Kleinasien: Mentioned by Smirnov as being quite destroyed.

It has now been turned into a cowshed, and we were in some doubt whether it had ever been a church until we discovered the curve of part of the apse. There is also an engaged column at the end of what was once the nave—the church, therefore, had a nave and aisles—and a large rough window pier with holes for bars in the N. wall.

No. 15

Kleinasien : A note by Smirnov ; Crowfoot also notices the existence of a church with a baptistery "containing a font and drain".

Nos. 15 and 16 both lie in the W. town. Smirnov has made a slight confusion in the numbering of them. In his sketch map he places No. 15 a little to the S. of No. 16, but in his notes he describes the more northerly church as No. 15. Now as the N. church is almost perfect (Strzygowski gives Smirnov's drawings of it) and the S. church is almost entirely ruined, there is no possible doubt as to the application of Smirnov's descriptions. We have adhered to the numbering in the plan ; it must therefore be borne in mind that in Smirnov's notes the account of No. 15 applies to No. 16 and *vice versa.*

No. 15 stands on the western edge of the basin that lies below the W. town (Fig. 92). No. 10 stands upon the northern edge of the same basin. The ground at the E. end of the church has given way, the apse has fallen down the hill-side and its ground plan is not recoverable, but, from the single stone that remains in place at the N.-W. end of the curve, it would seem to have been stilted not horse-shoed. It is surprising that any part of the E. end of No. 15 should remain. It is built, not only without foundations but almost in mid-air. In the N.-E. angle of the wall the masonry is poised on the rocky excrescences at the edge of the slope, an angular niche cut in a knob of rock taking the corner-stone and holding it in place. This is a curious instance of the permanence of old Anatolian traditions, the rude walls of Phrygian fortifications being fitted into the excrescences of the native rock in exactly the same manner. A narthex lies before the nave and aisles, but the W. wall has been restored at a very late period (Fig. 93). The roughly built door in the N.-W. corner with its rude relieving arch are a part of the later work. The original narthex was of the type described in Nos. 3, 4 and 5 ; the S. end was divided off into a small chamber entered from the S. aisle, the rest of the narthex was roofed with a barrel vault supported by a transverse arch ; a door led into the nave, but there was no door into the N. aisle. The arcades of four arches dividing nave and aisles rested on three

Fig. 93.—No. 15, W. wall of narthex.



Fig. 94.—No. 15, double column of apse window.

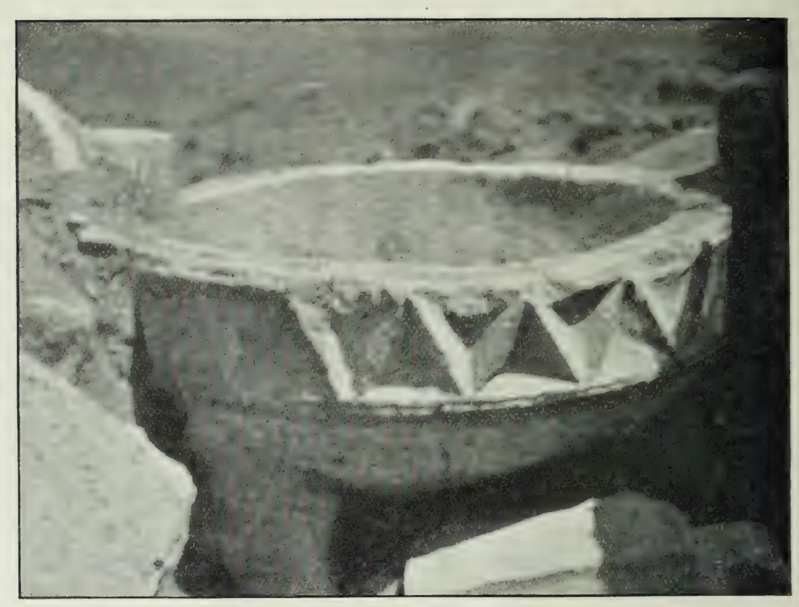


Fig. 95.—No. 15, font.



Fig. 96.—No. 15, chamber containing font, from N.

double columns and two engaged columns, all of which, together with the lintel and jambs of the W. door and the double columns of the side windows, were of blue limestone. Each aisle was lighted by a two-light window towards the western end of the side wall; there may have been a similar window at the eastern end of the N. and S. walls, but as far as I could judge this was not the case. In the eastern wall of the N. aisle there was a small wedge-shaped square-headed window. The corresponding wall of the S. aisle had fallen. I found among the ruins the blue limestone double columns which had carried the arches of the two-light windows. They were pierced with holes for bars. I think this was generally the case in all large windows, but I have sometimes omitted to note the fact. The apse must have been lighted by a pair of arched windows, for among the ruins on the slope lay the double column that had divided them (Fig. 94). It was of the stone with which the church was built, not of blue limestone. All the bases of the nave arcades, including those of the engaged columns, remained in place, sometimes with shattered fragments of the double columns standing on them. There was a doorway in the N. wall of the church which led into a small chamber containing a large stone basin resting on three feet (Fig. 95). This chamber was open to the N. and had a small doorway in the W. wall. There was just room to pass through the W. doorway between the basin and the church wall, and so into the church. This is the baptistery of which Crowfoot speaks. The W. wall was crowned at the northern end by a splay-faced moulding (Fig. 96) which looks as though it may have carried an arch that stretched across to the E. wall. In this case the chamber would have been roofed by a barrel vault set at right angles to the vault of the aisle, and we found cut vaulting stones lying on the font and inside the chamber. We saw no sign of Crowfoot's drain. On clearing out the church we found what was certainly a minbar built up against the base of the westernmost column of the S. aisle (Fig. 97). It had four steps to the N. and was constructed of re-used stones, among them a small double column. In the S. wall a little to the E. of the minbar, a mihrab niche had been contrived, partly by hollowing out the

wall, partly by buttresses set forward on either side of the niche. The mihrab and the walls adjoining it were thickly plastered. This then accounts for the shockingly bad masonry of the W. wall of the narthex, masonry much worse than any that we know to belong to the Christian period. The church had been converted into a mosque after the Seljuk invasion, the W. wall of the narthex, which had fallen, had been roughly reconstructed by Mohammedan peasants, who had at the same time blocked the door between the S. aisle and the narthex chamber, and opened a small doorway in the S. wall of the narthex. (I may mention that none of the present inhabitants of Maden Sheher knew that there had been a mosque here. Our discovery was greeted by the village Imam with surprise and delight.) A doubt arises as to whether the "baptistery" may not be a construction of the Mohammedan period, a place for ablutions before prayers, fitted with an older stone basin or font. But if this were so I do not suppose that it would have been roofed, certainly not with the sharply cut vaulting stones which we found in the chamber. (It is however always conceivable that these stones may have belonged to the vault of the adjoining aisle.) Moreover the masonry of the walls of the chamber do not belong to the same period as that of the W. wall of the narthex, and I am persuaded that the N. chamber is part of the original church and in fact a Christian baptistery. The badly laid foundations of the W. wall (Fig. 96) is no argument against this view, for the walls of the church itself are set upon the ground in much the same manner.

The stones used in No. 15 are large oblong blocks well faced on the exterior of the walls and left comparatively rough for plaster on the inside. I found a number of moulded stones, much weathered, among the ruins. Of these Fig. 98 *a* and *b* occur in No. 29. The ovolo, so common in Syria, is almost absent in Central Asia Minor. *c* and *d*, Fig. 98, were stones rounded to fit the outer curve of the apse, *d* having been probably the flat moulding below the windows. There must have been also a straight string-course or cornice of the profile *c*, for it appeared also on stones which were not curved. Round the W. door of the nave the mouldings are extremely sharp,



Fig. 97.—No. 15, minbar and mihrab, from E.

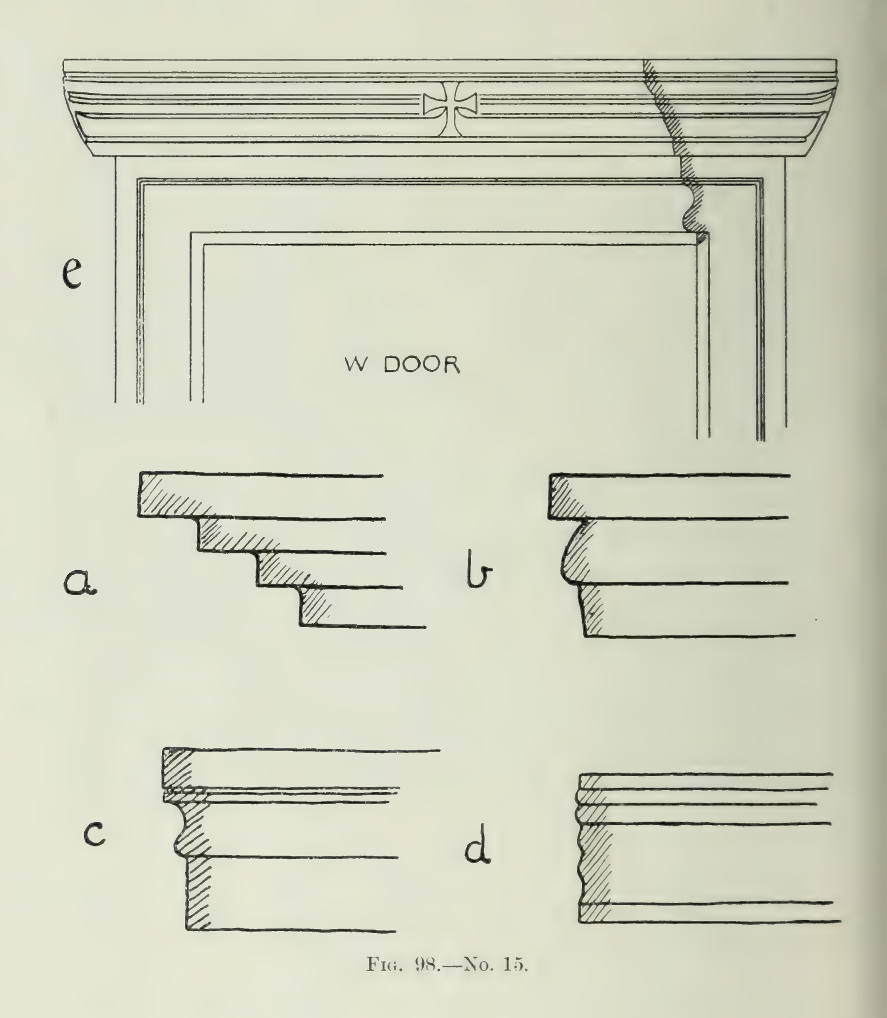


Fig. 98.—No. 15.

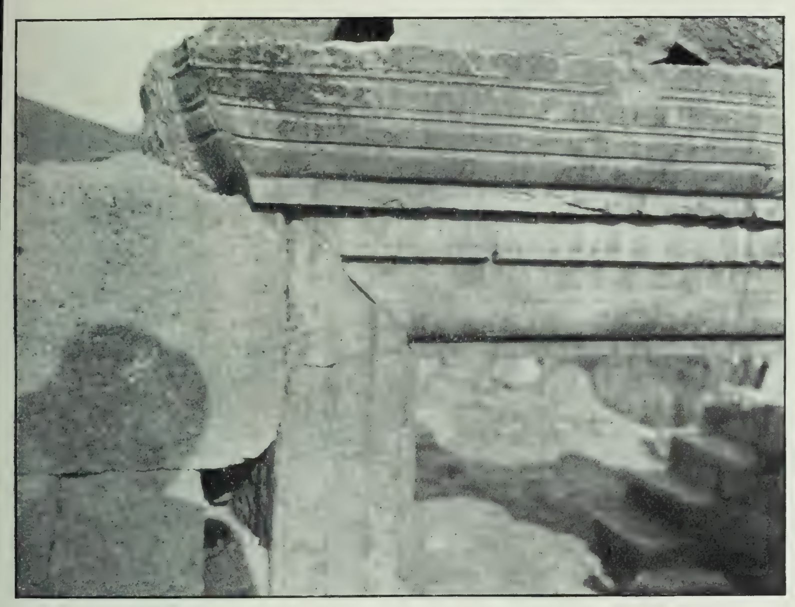


Fig. 99.—No. 15, door between narthex and nave.



Fig. 100.—No. 15, base f column in nave.

Fig. 101.—No. 16.



Fig. 102.—No. 16, narthex, from W.

owing to the fine grain of the stone (Fig. 98 *e*, and Fig. 99). There is a double lintel. The upper one is decorated with a series of bands and a cross, the lower limb of which is a little longer than the upper, while the four arms terminate in the usual splayed out ends. On the lower lintel and the jambs are a notched band and a boldly cut upright cyma. Smirnov mentions a relieving arch like that of No. 3 over this door; it has now fallen. The base of one of the double columns of the nave can be seen in Fig. 100. Round the upper part of the stone basin is a band of deeply cut zigzags (Fig. 95).

No. 16

Kleinasien: Smirnov gives notes and drawings from which Strzygowski made out a ground plan. The small chapel which Smirnov mentions against the N. wall is, I think, the result of the confusion he made between Nos. 15 and 16; we saw no trace of it.

No. 16 is one of the best preserved of the churches in Maden Sheher, though it is architecturally the most poverty-stricken (Fig. 101). It stands upon the S. side of the basin below the W. town. The ruins to the S. of it have been patched together so as to form a dwelling-house (the only inhabited house in the W. town) and the church itself has been turned into a cow-shed. During these adaptations the southern end of the narthex seems also to have been transformed, though what was its first shape I find it difficult to determine. The original narthex was certainly walled off on the southern side into a separate chamber, but I could see no door leading into it from the S. aisle. It must, however, be added that I was unable to clear out the church owing to its forming part of the peasant's farm-buildings. Moreover the original masonry is such poor stuff that it is not easy to distinguish it from the additions made by later owners. There were the usual arched doorways divided by a double column in the W. wall (Fig. 102), and the N. wall was broken by an arched entrance almost the width of the narthex (Fig. 103—the photographs were taken before I had cleared out the narthex walls). A door led into the nave; on the W. side this door is square-headed (Fig. 104), in the interior it is arched

(Fig. 105). On either side of the nave are two double columns and two engaged piers supporting three arches of unequal width. The apse is stilted and lighted by a single arched window (Fig. 106). The aisles have a wedge-shaped square window in the E. wall and the S. aisle seems also to have been lighted by two windows in the S. wall, but I cannot be certain whether the western of these two was not a door. The arch over the apse is horse-shoed, so are the arches of the arcades and the pair of arches of the W. entrance.

The masonry is inferior to that of any other Christian building in Maden Sheher. There has been some attempt to lay the stones in alternate wide and narrow courses (Fig. 107), but they are roughly faced and carelessly fitted. Plaster covers the interior walls. The vaults are of uncut stones and mortar, without a facing of dressed stones, the interstices filled in with plaster (Fig. 108). They resemble, therefore, the worst built of the Maden Sheher vaults, *i.e.*, the restored aisle of No. 1, the restored aisle of No. 6, the fallen fragments of vaulting in the N. aisle of No. 21, and the nave of No. 22. Smirnov observes that the roof was *à dos d'âne*: the slope of the roof can be seen in Fig. 107. No. 16 is a barn church, the vault of the nave not having been lifted above the vault of the aisles. The arch of all the vaults was irregular, as can be seen in the fragments that remain over the narthex (Fig. 103, *cf.* with this the aisle vaults of No. 6). There are no mouldings on the exterior of the church; if there was a cornice it has fallen and left no trace. The lintel and jambs of the W. door show a double notched band with a medallion in the centre above a wide bead, the whole miserably ill-cut. There are remains of plaster on the lintel. The arch on the inside of the W. door is moulded with a shallow groove between notches. The capitals are exceedingly poor (Fig. 109); no parallel example can be cited from the Kara Dagh.

I think it probable that the ruins to the S. of the church, now converted into a house and stables, may indicate the former existence of monastic buildings.



Fig. 103.—No. 16, narthex, from N.



Fig. 104.—No. 16, door between narthex and nave, from W.



Fig. 105.—No. 16, W. end of nave, showing door into narthex.



Fig. 106.—No. 16, interior of apse.



Fig. 107.—No. 16, exterior of apse.



Fig. 108.—No. 16, S. aisle, looking E.

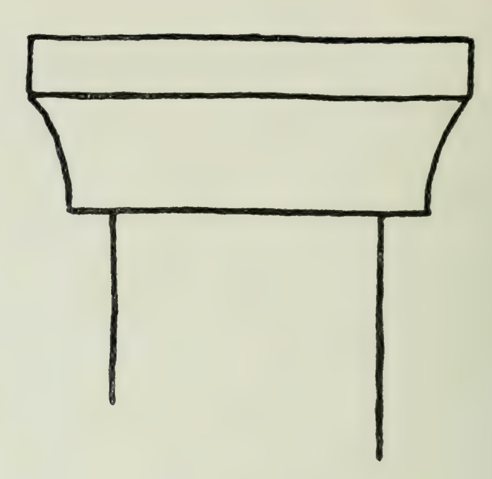
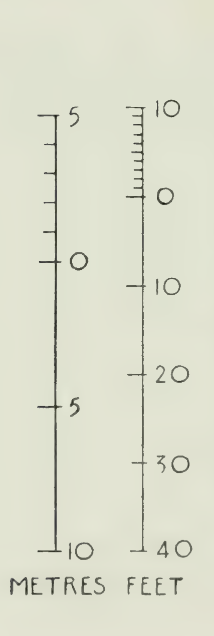


Fig. 109.—No. 16.



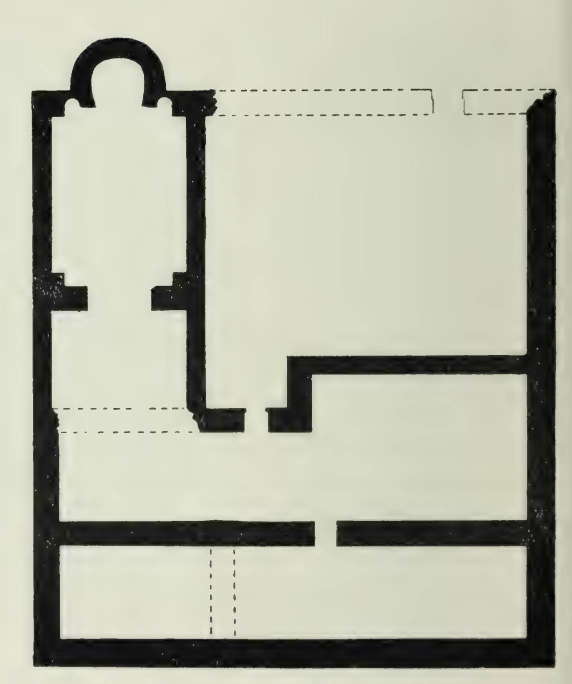


Fig. 110.—No. 17.

No. 17

Kleinasien: A note by Smirnov.

This chapel was connected, as Smirnov observes, with a small monastery (Fig. 110). It lies not far from No. 6 on the south-eastern edge of the lower quarry in Maden Dagh. Very little of it remains. The chapel is without aisles, the apse is horse-shoed and flanked by two small niches, the nave was roofed with a barrel vault. A door at the W. end leads into a chamber, wide in comparison with its length, which should be regarded rather as an ante-chamber to the monastery than as a narthex to the chapel. The N. wall of the chapel and ante-chamber is prolonged so as to form the N. wall of two sets of parallel chambers. They open into one another and into an irregular court S. of the chapel—the irregularity is caused by a set forward in the wall of the eastern chamber—which, in turn, communicates with the outer world by a doorway in the E. wall. Chapel and monastery thus form an oblong enclosure, the line of which is broken only by the apse.

The N. wall and apse of the chapel have been restored. The lower courses are of wedge-shaped stones with no mortar showing on the outer face, the upper of smaller stones, not wedged, with mortar joints. There is no other example in Maden Sheher of this type of masonry. In the older portion of the wall the stones are not very evenly coursed, and in some courses the height of the stones is greater than their width. On the S. side of the chapel the latter peculiarity is still more marked. The masonry here is left rough, probably because it was treated merely as the inner wall of the court, but it belongs to the older period. Traces of fresco can be seen in the chapel, especially in the niches on either side of the apse. There are crosses cut upon such of the lintels as remain in the monastic buildings. To the N.-E. lies a vaulted cistern.

No. 18

Kleinasien: A note by Smirnov.

No. 18 is a small chapel without aisles. It is quite ruined; we were doubtful as to whether there had been a narthex.

No. 19

Kleinasien: Mentioned by Smirnov, who says it looks like No. 15, *i.e.*, the church numbered 15 in his notes and 16 in his map.

We doubt whether No. 19 is a church. What Smirnov calls piers are four door jambs which protrude from a heap of earth and stones. The round stone he mentions (a mill stone?) lies, as he says, in the place where the altar would be if this were a church, but we think that the site is no more than a Mohammedan burial place, the four stone posts marking the head and foot of two graves.

No. 20

Kleinasien: A note by Smirnov.

We were unable to identify this church, and think that Smirnov's No. 20 may be our No. 28, though the position on the map is not the same.

Nos. 21 and 22

See No. 12.

No. 23

A little to the N.-W. of No. 19 there is a large fragment of masonry which looks like part of a narthex. The work is poor, everything but the N.-W. corner of the narthex—if we are right in so calling it—has fallen, and most of the stones have been removed.

No. 24

See No. 6.

No. 25

A small church in the W. town (Fig. 111). The nave is divided from the aisles by two blue limestone double columns on either side.[1] These columns have been taken from other buildings; they are not of the same size, and are irregularly placed. The apse is horse-shoed. There is a door to the W. The walls are ruined below window level. The masonry is of very large blocks outside and small wedge-shaped stones inside,

not unlike No. 11. A Greek cross in a rayed medallion is cut on the N. wall (Fig. 112). Among the ruins we found a blue limestone capital exactly similar to the bases in No. 15. It is possible that an old base may have been used here as a capital, but base and capital are not infrequently the same: in the narthex of No. 1 for instance. In the interior of the church, which we cleared out, there was a large round stone 1·20 m. in diameter with an oblong hole (0·20 × 0·36) in the centre. Near it lay a pestle-shaped stone 0·88 long with a bulging top and a smaller base cut so as to fit the hole in the round stone. In another place (Mahaletch) we found a similar round stone with an oblong hole over the mouth of a vaulted tank or store house, and by it lay a stone stopper like that in No. 25. How, and to what end, they were placed in No. 25 we do not know.

No. 26

Higher up in the W. town (the ground slopes upwards to the S. towards the steep mountain sides) there are the ruins of another small church with a narthex, but apparently without aisles. A complex of ruined foundations near it, and one or two lintels with medallions and crosses, seemed to indicate the existence of a small monastery here.

No. 27

A small church quite ruined. On clearing out the E. end we found the line of the apse forming on the exterior five sides of an octagon (*cf.* No. 3, the only other example in Maden Sheher, though there are several in the upper town, Deghile).

No. 28

See No. 20.

A chapel with a narthex but no aisles, quite destroyed. We saw a roughly moulded lintel near the W. door. Masonry of large stones; one measured 1·50 metres in length.

No. 29

Sir W. Ramsay sent me in 1908 the following notes of a church which I did not see till I revisited the site in 1909 —

"Returning late from Deghile, we walked across from the mouth of the Dere in the direction of Nos. 8 and 7 (roughly speaking), and in a part where I had never before been, we were struck by some large and well-worked stones protruding from a mass of débris. Walking over it, we found an accumulation of earth concealing some ancient building, burying it quite deep. The stones that appeared were distinctly superior in character to anything I had seen in any of the churches. In the hope of finding here a Roman building, which might contain inscriptions, we resolved to dig it up, at least enough to determine whether it was a church or not; and if it were not, to clear it completely, for inscriptions. Two days' work was spent on it.

"The building is a church, unusually well built (so far as mason-work is concerned (Fig. 113)). The walls are about 3 feet thick; and all the important parts, especially the upper parts, are made of blocks occupying the whole thickness: the arches, sides of windows, are almost all built of stones of this size.

"The apse was roofed in its lower part by large blocks in horizontal courses, which were bevelled on the inside so as to approach towards one another and narrow the intervening space. Only one of these blocks was in position, but others were found. It is possible, however, that the upper part of the apse-vaulting was in concrete, because we found only a few blocks of this class, while we found many blocks belonging to the other highest members of the E. part of the church, in which stone alone was used. At the same time I confess that I observed no concrete among the débris, but I was rarely present at this part of the work, being more occupied with the W. side, while an overseer was at the E. side.

"One of the stones in the front of the apse, probably the central stone or one next to it (as in No. 33), bore the inscription No. 39.

"The W. entrance resembles that of No. 31; it enters on a chamber, closed on the S., communicating N. by a large arch with a chamber which was not cleared; on the E. a single arched door led into the church. The S. end of the

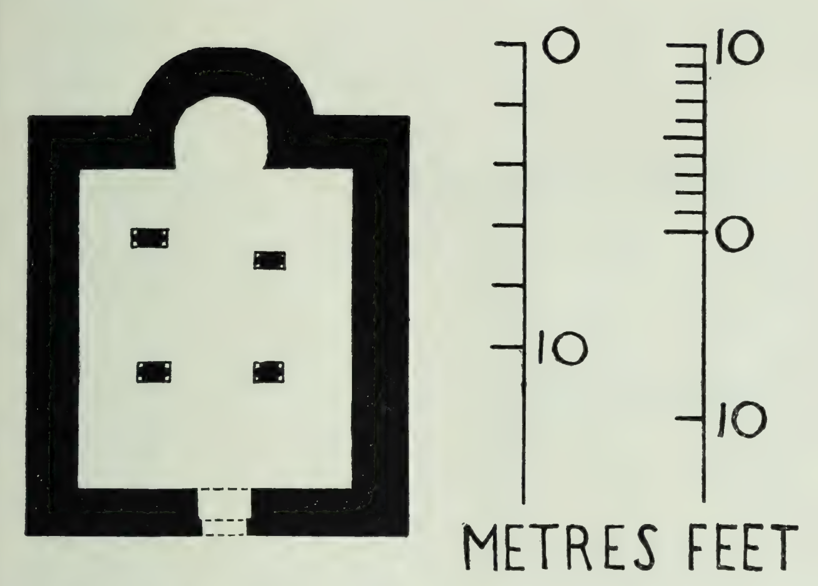


Fig. 111.—No. 25.

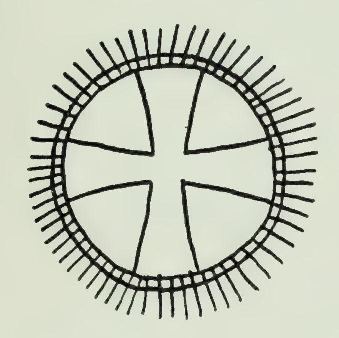


Fig. 112.—No. 25.

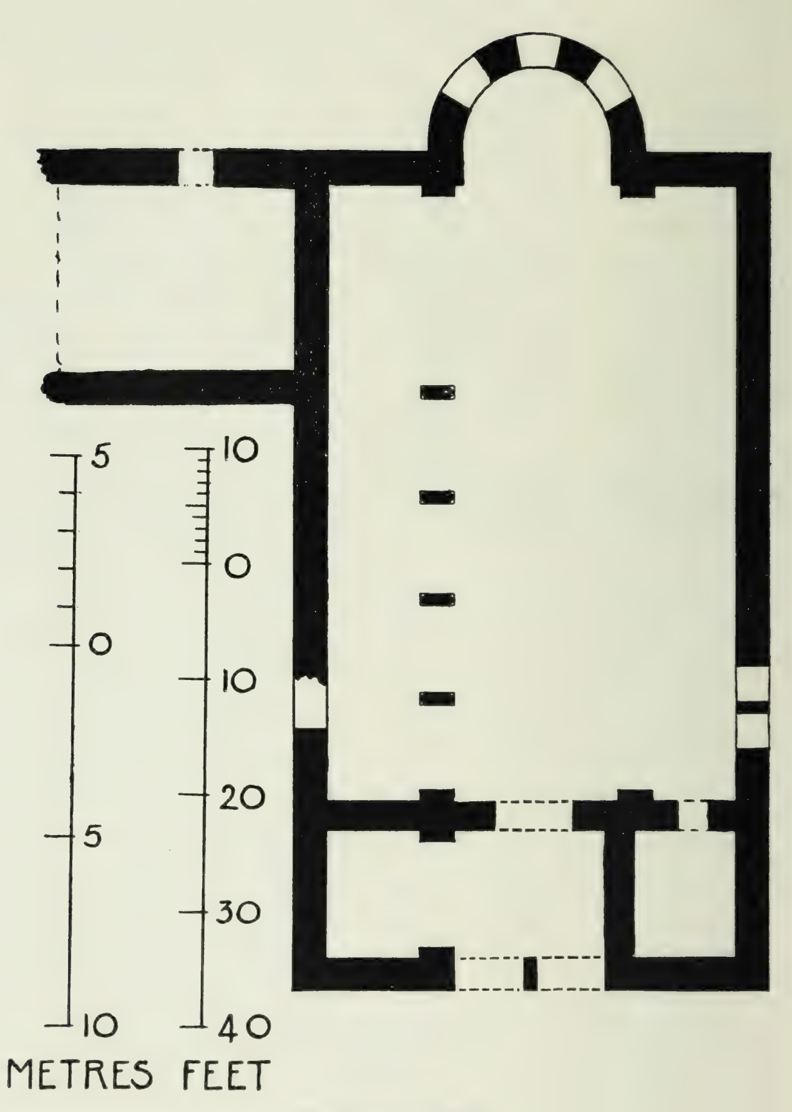


Fig. 113.—No. 29.

narthex was entered by a door from the church, square on top. In the central narthex was a font for holy water, a square pillar 1 foot 4 inches square, 2 feet 3 inches high, with basin cut in the top. There was a small chamber attached to the N.-E. corner of the church. The E. wall was aligned with the E. wall of the church, but the masonry was not nearly so good as that of the church.

"The floor of the apse was of mosaic, the pattern very irregularly executed, but the design quite clear (Fig. 114 *a*). A moulding ran all round the church. It consisted of a projecting band and an ovolo, the latter very irregularly cut (Fig. 114 *b*). Possibly the irregularity depended upon the quality of the stone, the finer stone receiving the deeper cutting. Fig. 114 *c* shows the section and elevation of the double columns of the nave. The W. side of the double column in the narthex has a deep broad cross incised as in No. 5, but no inscription underneath as in that case. Were these incised crosses intended to hold metal crosses? A stone bench ran round the interior of the apse (*cf.* No. 21). The central part of this bench was broken away and disclosed a hole underneath, which, unfortunately, I omitted to explore, assuming that the apse was built at least partly on arches. It may, however, have been only a grave. On the engaged columns in the nave a cross was carved (Fig. 114 *d*). Near the apse were found blocks decorated with three bands (Fig. 115).

"Fig. 116 shows the W. door of the narthex. The outer ends of the horse-shoed arches rested on a moulded block, the principal member of which was a pendulous cyma. This cyma is plain on the S. side, but on the N. side it is grooved with incised lines one inch apart running obliquely downwards and outwards."

No. 30

At the foot of the last slope below Deghile, on the left of the path there are remains of a small chapel completely ruined.

Nos. 31 and 42

Revue Archéologique, 1906.

No. 31 is a basilica standing in the upper town, Deghile, on the extreme south-western corner of the plateau (Fig. 117). The ground rises to a rocky knoll on the S. of the church, and then drops into a valley that separates the Deghile spur of hill from the main mass of the Kara Dagh. On the E. it falls away into the same valley, on the N. another rocky mound stands between the church and the rest of the plateau. Immediately to the W. the hill-side drops steeply down towards the Konia plain; the traveller approaching from Aryk Euren sees No. 31 standing above him while he is still far off, and sees nothing else of Deghile. A wide but very roughly-built fortification wall connects No. 31 with No. 42, the S. ends of the wall abutting against the N. wall of No. 31 about three metres from the N.-W. corner. A similar wall runs off from the N.-E. corner along the brow of the hill. No. 31 formed the S.-W. angle of the town defences; it could only be entered by going outside the walls and for that purpose there was a small door between it and No. 42.

The W. wall of the narthex is broken by a double-arched doorway, the arches slightly horse-shoed, resting on a double column (Fig. 118). The S. end of the narthex is walled off into a chamber entered from the S. aisle, lighted by a tiny slit-like window in the S. wall and a small square window in the N. wall. All the ground-floor chambers are roofed with barrel vaults running from E. to W. The central and northern parts of the narthex are divided from one another only by engaged piers and a transverse arch. This arch does not lie due E. and W., though to the eye it does not look so crooked as the measurements show it to be. The narthex is carried up to a second storey which was roofed with a barrel vault running from N. to S. (Fig. 119). The S. end of the upper storey does not seem to have been walled off. There is a small window in the S. wall corresponding to that of the lower storey. The central part of the upper storey was lighted by a window of two lights covered by horse-shoe arches. The double column

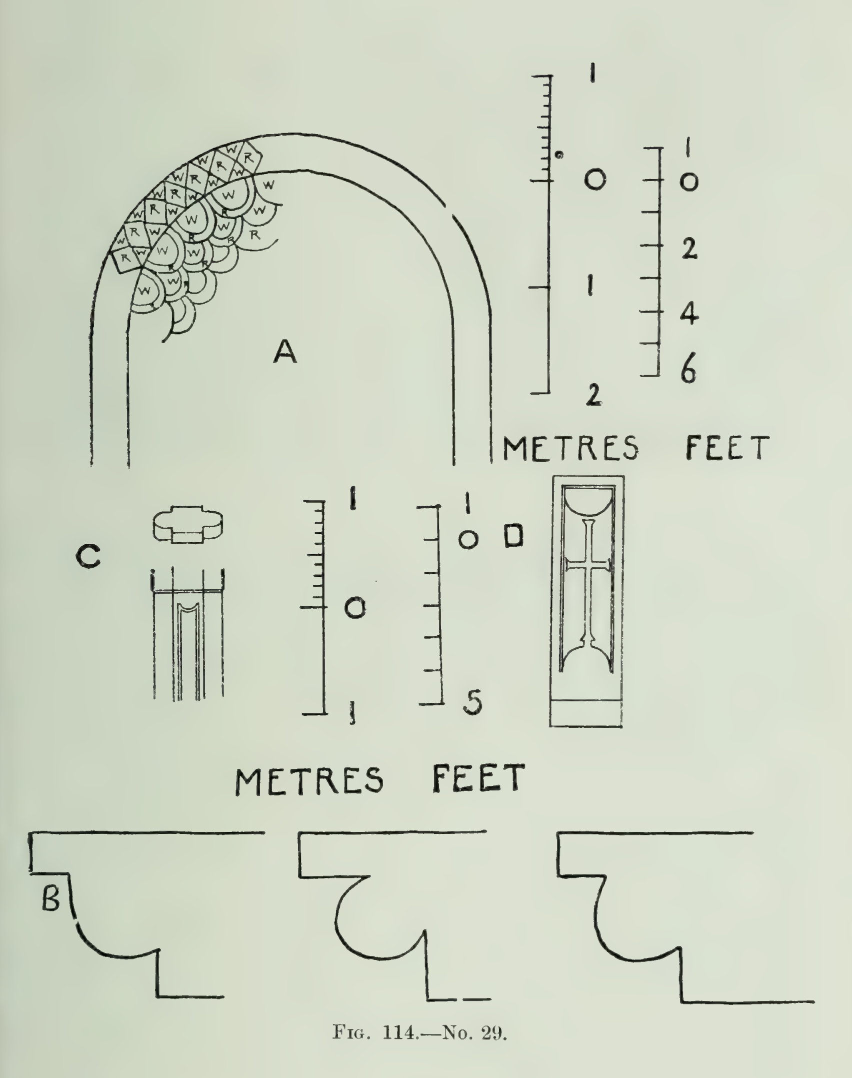


Fig. 114.—No. 29.



Fig. 115.—No. 29, mouldings.

Fig. 116.—No. 29, double-arched W. doorway seen from the inside: on the left is the wall of the S. chamber of narthex.

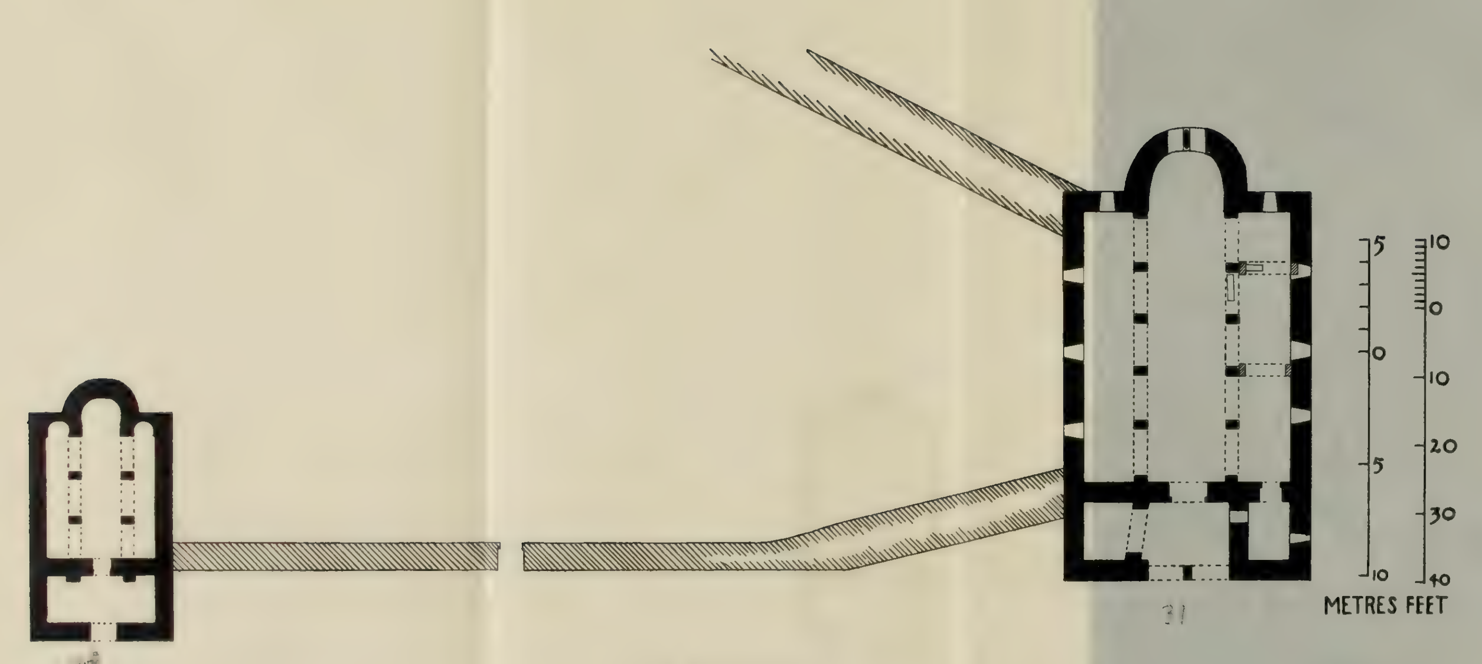
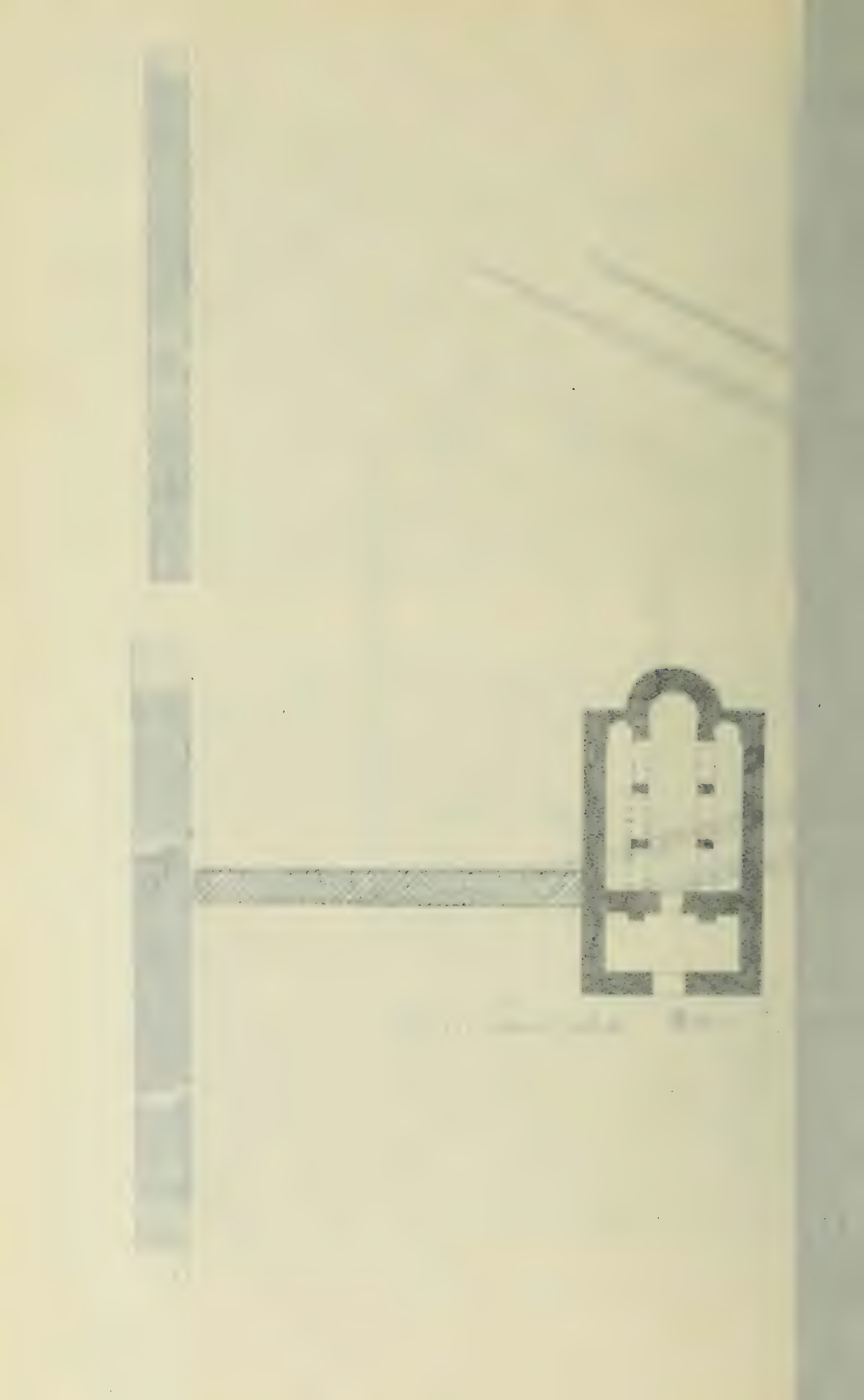


FIG. 117.—Nos. 31 and 42.



between the lights has fallen out. Below the window a string-course runs across the face of the wall. A door leads from the narthex into a nave divided from the aisles by arcades of five horse-shoe arches resting on four double columns and two engaged piers (Fig. 120). The arch over the apse is also horse-shoed, but the apse is not horse-shoed in plan. It is lighted by a pair of horse-shoe arched windows. Each aisle has three wedge-shaped, square-headed windows in the long wall and an arched window in the E. wall. The spring of the barrel vault of the N. aisle can be seen in Fig. 121. The walls of the nave were raised above the aisles (the height of the S. wall can be seen against the E. wall of the narthex, Fig. 122), and I do not doubt that they were broken by windows lighting the nave. The vault of the S. aisle must at some date within the Christian period have shown signs of giving way. It was strengthened by two transverse horse-shoe arches thrown across the aisle from piers set against the first and third double columns (Fig. 123). The first (easternmost) of these arches blocked one of the windows in the S. wall. There is no reason to believe that either the destruction or the reparation were as far reaching as in the case of the restored churches in Maden Sheher; the two new arches seem merely to have been put in under the old vault. Set upright against the S. side of the eastern pier of the reparation there is a large plain slab that half blocks the aisle, dividing off the eastern bay. A similar slab (but this time elaborately decorated) stands to the W. of the easternmost double column in the southern arcade of the nave (Fig. 124). I am inclined to believe that these two slabs are almost in their original position (the decorated slab has been pushed a little out of line) and that they indicate an attempt to enlarge the sanctuary. If this be so, No. 31 furnishes a clue to the original position of the other slabs worked with crosses, which we found in Nos. 3 and 21; they too had been used to rail off the side of the altar space which lay before the apse. There are in No. 31 holes for bars across the nave in the eastern columns immediately above the capitals, and holes higher up above the springing-stone of the arches. On the next pair of columns there are holes high up in the springing-stones of the arches.

It looks as though there had been some kind of baldachin over the altar in the second bay from the apse. (The holes in the double columns can be seen in Fig. 124.) There were no slabs on the N. side of the nave.

The masonry is good, the stones are carefully faced and fitted, but the coursing is irregular, indeed on large unbroken spaces of wall (for example the S. wall of the narthex) the courses are scarcely preserved. The interior has been covered with plaster and in the narthex there are traces of fresco. The barrel vaults, to judge by what remains in the N. aisle, do not seem to have been faced with dressed stones, but the semi-dome of the apse is of dressed and fitted stones. As in No. 1, a string-course runs across the face of the narthex below the windows; in profile it is a sharply undercut pendulous cyma (Fig. 125 *a*). On either side of the W. door (Fig. 126) there is a moulding beneath the spring of the arches; that which lies on the S. side (Fig. 125 *b*) is very similar in profile to the string-course, but the moulding on the N. side (Fig. 125 *c*) is composed of a bevelled band, a cavetto and a bead. The profile *c* appears again beneath the spring of the arches on either side of the pair of windows in the wall above, while another slight modification of *a* runs round the apse below the spring of the semi-dome and is placed under the arches of the apse windows (Fig. 125 *d*). A plain projecting course is carried round the N., S. and E. walls beneath the windows; it terminates abruptly at the W. end of the N. and S. walls, leaving an awkward projecting face to break the line of the corner. The double column of the narthex (Fig. 125 *e*, and Fig. 126) has on its broad sides a panel incised with a Latin cross splayed at three of the ends. The panel is curved above and below. The narrow side of the double column to the W. is decorated with a pointed triangular shield which drops from the square block left at the top for a capital (*cf.* the window column of No. 5). The double columns of the nave have also the panel (but without the cross) and the shield-like ornament. Sometimes the latter is long enough to drop below the shallow bands that form a rudimentary capital, sometimes it does not extend so far. There are no double columns in Maden Sheher as rudely cut as these, except the small double columns



Fig. 118.—No. 31, from S.-W.

Fig. 119.—No. 31, upper storey of narthex, looking S.

Fig. 120.—No. 31, nave, looking E.

Fig. 121.—No. 31, N. aisle.



Fig. 122.—No. 31, from N.-E.

Fig. 123.—No. 31, S. aisle, looking E.



Fig. 124.—No. 31, slab between nave and S. aisle.

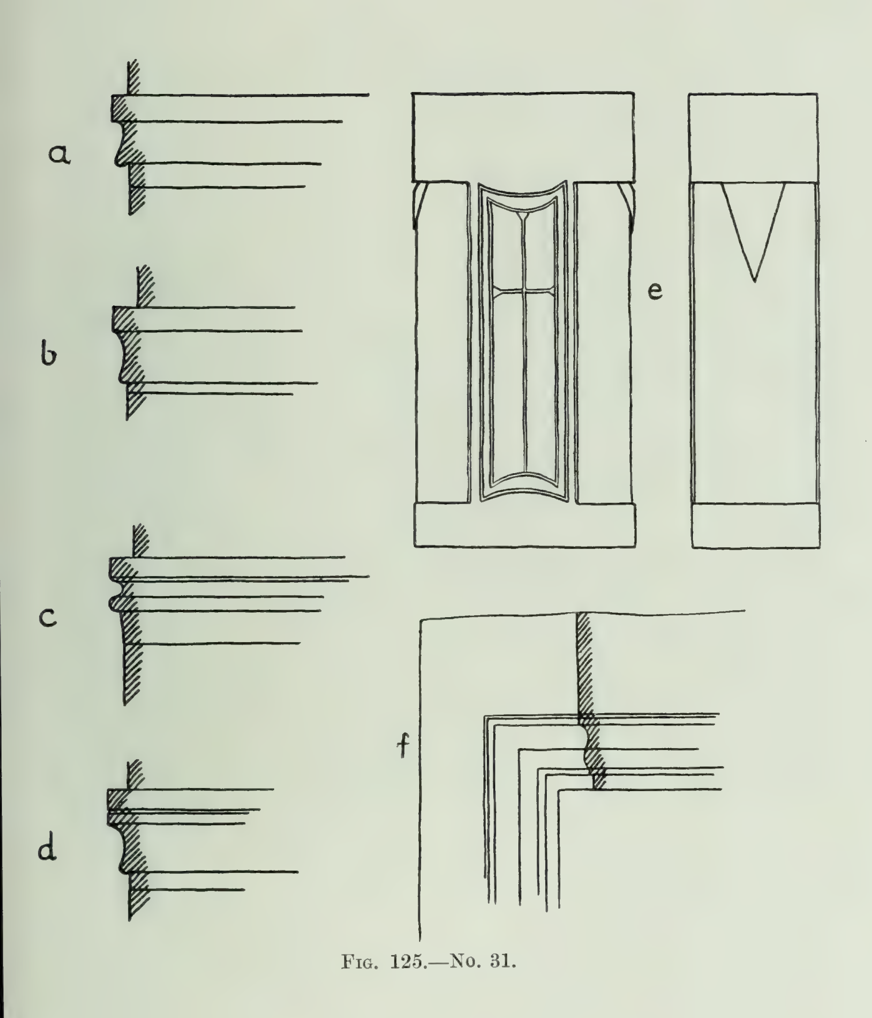


Fig. 125.—No. 31.



Fig. 126.--No. 31, narthex column.

placed in windows, where the mouldings that represent the capital are worked, as here, in the same block of stone as the column. In Maden Sheher the large double columns of narthex and nave always have capitals worked in a separate block. (I may remark here that the architecture in Deghile, and in other churches scattered over the hills, is less careful in details than that of Maden Sheher, even in churches which cannot be far from one another in date. The character of the vaults is a case in point; in Maden Sheher vaults entirely constructed of undressed stones would certainly not have been applied to a church which is otherwise so well constructed as No. 31.) In the small double column which divides the apse windows the mouldings of the capital exactly repeat those of the base. In the N. arcade of the nave the springing stone of the westernmost pair of arches is decorated with a cup and a bird in relief (Fig. 127). In a similar position above the next column is a victor's wreath (Fig. 128). The decoration upon the slab in the S. arcade has already been mentioned. It is a cross, cut so as to fill the face of the slab with two short and two long arms between which are rays reaching to the second of the three bands that edge the slab. Round the lintel and jambs of the W. door is a moulding consisting of a notched band, a cavetto and half round forming an **S**-shaped cyma, a fillet and a band (Fig. 125 *f*). It has been thickly plastered. There were some graves in the narrow piece of ground between the W. wall of the narthex and the edge of the slope; they had been opened by the Yuruks, who declared that they had found in them nothing but bones.

No. 42

A small church with a narthex and a nave divided from the aisles by two oblong piers on either side. The apse of the nave is stilted and horse-shoed, the aisles have horse-shoe apses in the thickness of the E. wall. The E. end of the church is built into the rocky hill behind it. The lintel of the W. door was lying among the ruins. It was not moulded but it bore a cross in a medallion in the centre. A moulding, cavetto and band (Fig. 129 *a*) ran round the interior of the church. In the

capitals two chamfers reduced the width of the abacus to that of the pier (Fig. 129 *b*).

Above this chapel on the summit of the knoll are three graves cut into the live rock. The stone lids that had covered them had fallen off and were lying at the foot of the knoll.

No. 32

See No. 43.

Nos. 33 and 36

Revue Archéologique, 1906. I am now able to give a more detailed plan of No. 33.

These churches belong to a group of buildings on the top of the rising ground E. of the village (Fig. 130). The enclosing wall E. of No. 36 stands on the eastern edge of the level ground where the hill falls away towards Maden Sheher, the W. wall of the narthex of No. 33 on the edge of the opposite slope overlooking the village (Fig. 131, frontispiece). There are remains of a flight of stone steps leading up the slope opposite the S. end of the narthex. Beyond the steps to the W. are two upright blocks of stone which look like the jambs of a wide gateway. Possibly the road up the steps to the church passed through this gate. The blocks stand in a line with other buildings which we believe to have formed a continuous street crossing the village from N. to S.

The W. wall of the narthex of No. 33 has fallen outwards, and part of it lies embedded on the edge of the slope, like a pavement, so solidly has the masonry held together. It lies towards the S. end of the narthex, opposite the wing in front of the small southern chamber. It cannot now be determined with certainty what doorways led into the narthex, but it seems probable that, as in No. 32, they were three in number. There are indications in the W. wall of a door 1·30 metres from the inner N.-W. angle; the foundation of this portion of the wall remains, and the straight edge of the masonry at the point mentioned probably marks the position of a door. Farther S. the traces of transverse arches can be seen in the E. wall of the



Fig. 127.—No. 31, column in nave.

Fig. 128.—No. 31, column in nave.

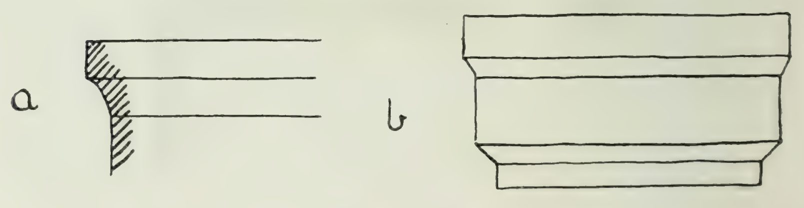


Fig. 129.—No. 42.

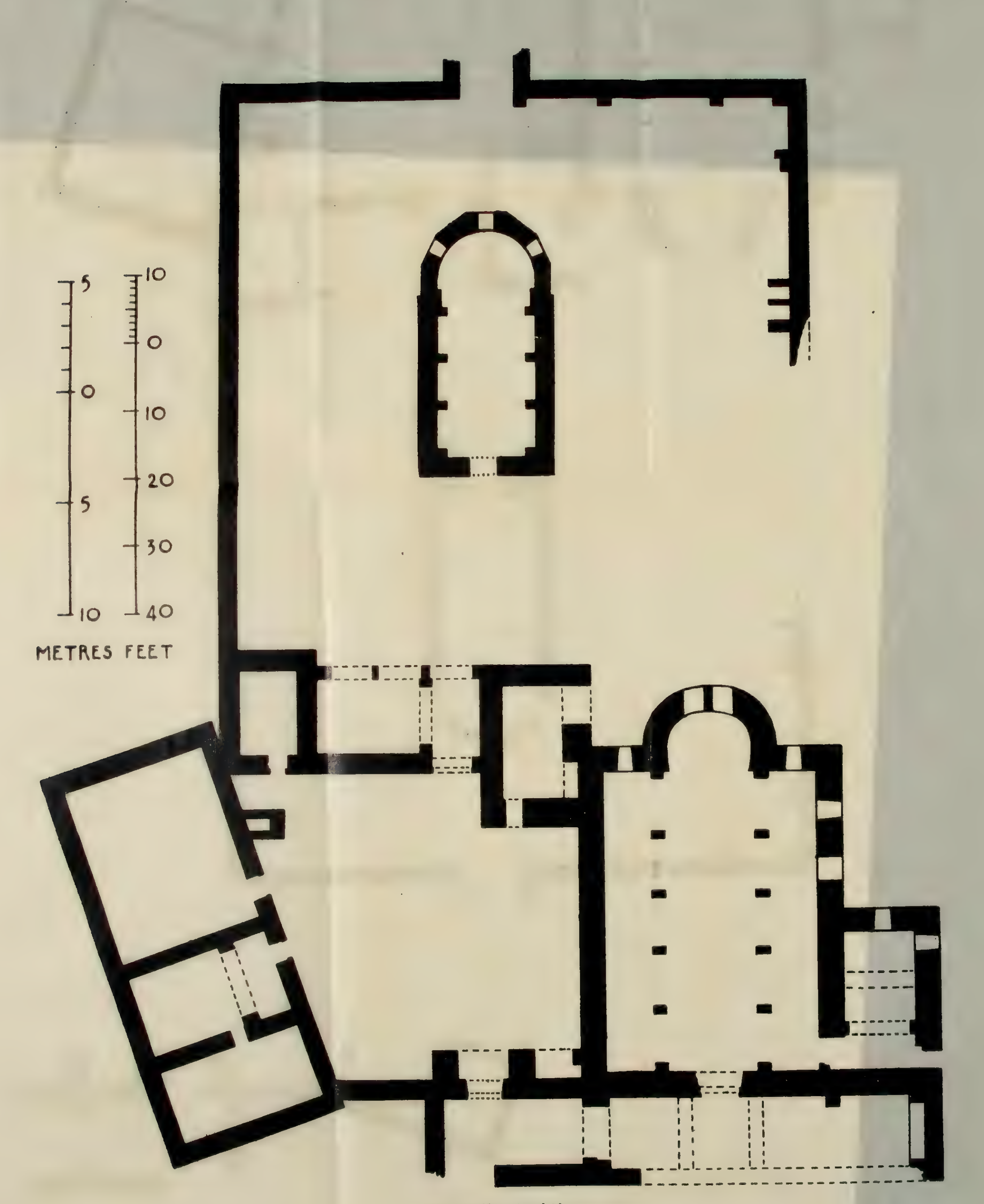
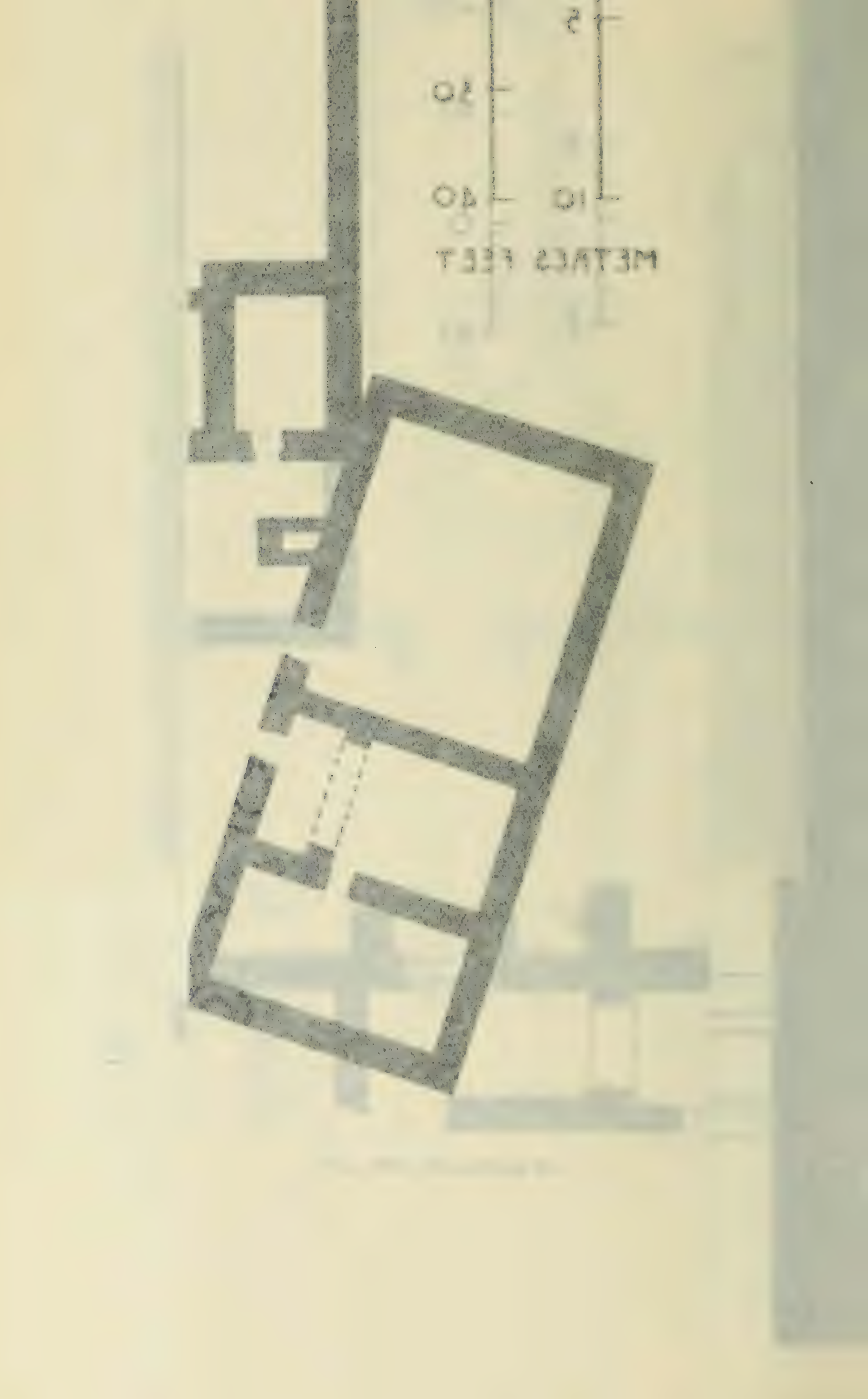


Fig. 130.—Nos. 33 and 36.



narthex on either side of the door leading into the nave; presumably these arches terminated against a similar piece of wall on the W. side. Between the transverse arches there must have been a door corresponding to the door in the E. wall that leads into the nave; S. of the arches I would place a door corresponding to the door to the N. The southern end of the façade, *i.e.*, the W. wall of the wing, was unbroken, as is evident from the large fragment that lies upon the ground. The S. wing did not form a separate chamber, it was divided off by engaged piers carrying a transverse arch. Against the S. wall is a tomb which occupies the whole width of the narthex (Fig. 132). Between a carved slab and the outer wall of the narthex space had been left for a coffin. The wood of the coffin had perished, but we found the large nails which had held the boards together. The sepulchral inscription was cut upon two or more stones at the W. end of the tomb; only the lower stone remains, with a fragment of the inscription. (It is the stone that appears to the right in the photograph, behind the carved slab.) We found another grave in the S. wing below the level of the ground. The N. end of the narthex is broken by a wide opening. A lintel lies face upwards across this opening, the ends resting on two rough blocks of stone (Fig. 133), which are not part of the original building; nor can the lintel be in its original position. The northern prolongation of the narthex belongs to a later period, and will be dealt with presently. There is but one door between the narthex and the body of the church. It leads into a nave divided from the aisles by four oblong piers and two engaged piers. Nothing remains of the arches that sprang from these piers, and only one or two of the capitals are in place. In clearing out the nave we found remains of very late building, like the walls inside Nos. 13 and 21. The outer walls of the aisles are standing up to a certain height and the apse, horse-shoed in plan and in elevation, is complete (Fig. 134). It was lighted by two horse-shoe arched windows divided by a double column. It is noticeable that the arches of the windows are not properly keyed, the stone that appears to be the keystone not being in the middle of the arch. This construction will be noticed elsewhere (Nos. 32 and 36,

Mahaletch). The apse is so low that the windows break into the semi-dome, a characteristic peculiar to this church, No. 36, Maden Dagh and Mahaletch. There are holes for bars across the windows. Wedge-shaped square-headed windows broke the E. wall of the aisles (Fig. 135), a similar window could be seen in the S. wall of the S. aisle, and to the W. of it is another opening which may have been a window or a small door, probably the former. The wall was much ruined here. At the S.-W. corner of the S. aisle a door led into a small chamber built out against the S. wall of the church. From the masonry I judge it to belong to the same period as the church. It could be entered from the outside by a doorway in the S. wall, opposite the door into the church. It had been barrel-vaulted with two ribbing arches—these are standing. There was a small square-headed window in the E. wall, and another in the S. wall. I think there had once been a window in the W. wall, which would have opened into the wing of the narthex, but if so it had been carefully walled up on the narthex side. The interior of the chamber had been cleared out by the Yuruks and planted with tobacco seedlings.

N. of the church is a complex of buildings the history of which we can guess from architectural and epigraphic evidence. The buildings lie round an irregular court. At the S.-E. corner is an oblong chamber built partly against the N. wall of the church but prolonged beyond it to the E. It opened into the court by a narrow door in the W. wall. Against the inside of the S. wall were two arched bays (Fig. 136). There may have been a door in the eastern of these bays but certainty is not possible, the wall being much ruined. In a line with the E. wall of the chamber there had been a portico of three arches resting on two oblong piers and two engaged piers. The arches had fallen but the voussoirs were lying on the ground. Against the W. side of the southern pier stood a transverse pier which had carried an arch across to an engaged pier in the opposite wall. Probably the oblong chamber behind the portico was barrel vaulted. It opened into the court by a large door; the jambs and the lintel are standing and are moulded on the W. side. A small oblong chamber lies to the N. of the portico; it opens into



Fig. 132.—No. 33, tomb at S. end of narthex.



Fig. 133.—No. 33, lintel in narthex.



Fig. 134.—No. 33, apse.



Fig. 135.—No. 33, exterior of apse.

the courtyard by a door in the W. wall. The E. wall projects slightly beyond the line of the portico piers.

The W. side of the court is bounded by a prolongation of the narthex of the church. It is of very poor masonry and unevenly built, the walls not quite in line with the narthex but trending slightly to the W. A door opens from it into the court, and not quite opposite this door there seems to have been an entrance in the W. wall. The narthex prolongation closes with a rough transverse wall, but the E. wall (the W. wall of the court) is carried on till it touches a building to the N. which has still to be described. On the S. side of the court there are two arched bays against the W. wall, the arches carried by masonry piers. In the northern of these bays is the door above mentioned between the narthex prolongation and the court. (The inscription of Basil is written in this doorway, upon the N. face of the S. pier.) These arched bays against the wall resemble those described in the chamber to the S.-E. of the court, but they are even more carelessly built; whereas the S.-E. chamber arches are edged with a narrow fillet, the western arches are left quite plain.

Finally the court is bounded on the N. side by an oblong building consisting of three parallel chambers. It lies from N.-E. to S.-W. The inner wall is carried straight through, cutting off the corners of the E. and W. walls of the court, and projecting slightly beyond them. It must have been standing when they were built, for they are adapted to it and fitted on to its oblique line. The largest of the three chambers lies to the N.-E. and opens into the court. The next chamber also opens into the court; towards its southern end there are a pair of engaged piers which probably carried a transverse arch. The third chamber opens out of the second and has no door into the court. Against the inner wall at the eastern end there is an oblong water basin, rock hewn and more irregular in shape than it is drawn in the plan.

The masonry of No. 33 is rougher than that of No. 32. It looks like rude peasant work, solid enough, but without distinction or technical skill. Fig. 135 shows the character of the stone-laying. The flat moulding round the apse below the

windows is cut unevenly; sometimes the cavetto widens, sometimes it narrows. All the ornamentation of the church is in this style. Nothing but the foundations remain of the E. portico of the court. The masonry of the S.-E. chamber is ruder than that of the church (Fig. 136), but the fillet that edges the two arches shows that there was some attempt at finish. The voussoirs of the portico arches are edged with the same fillet but the arches of the W. wall are plain. In this wall and gateway the work is of the most miserable quality. The door into the narthex prolongation is provided with a lintel and jambs moulded in the poorest manner (Fig. 137 *a*), the walls are badly aligned, and the stones scarcely faced. As in the church, there are remains of some very late building in the prolongation of the narthex, and it was probably in connection with this post-Christian work that the lintel at the N. end of the narthex was placed in the position it now occupies. Of the original buildings, the roughest in character is the block of three chambers on the N. side of the court. This is not, however, surprising. In every part of Central Asia Minor known to me the best masonry is reserved for the churches, while the adjoining and contemporary houses or monasteries exhibit a totally different kind of work. Frequently the stones are perfunctorily squared, no attempt is made to join them accurately, and the interstices, where they were filled in at all, were often filled in with clay, not mortar. For this reason they have fallen into more hopeless decay than the churches. It is sometimes difficult to distinguish between house walls of the Christian period and the piling together of stones into sheepfolds or shelters by Yuruk shepherds. The difference is to be found in the ordered ground plan of the Christian builders, the parallel chambers and sharp angles of house and monastery which are lacking in the Yuruk work, rather than in the featureless and decayed masonry. The house in No. 33 is by no means an unusually poor example of this type of building.

The most important mouldings on the church are the string-course round the apse below the windows, and the cornice round the top of the apse. The string-course (Fig. 137 *b* and Fig. 138) is cut with a very shallow cavetto differing but slightly from a concave moulding (*cf.* Nos. 3, 6 and 8). The cornice (Fig.



Fig. 136.—No. 33, arched bays N. of church.

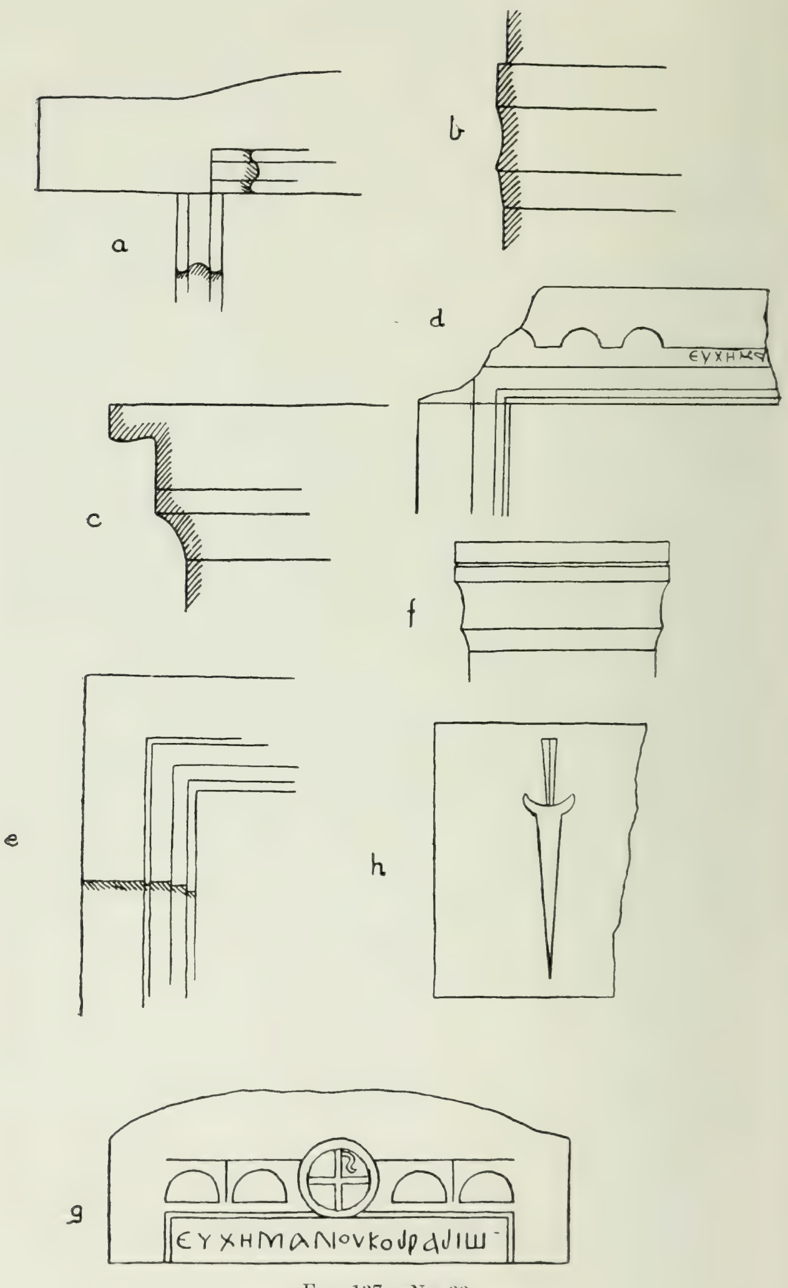


Fig. 137.—No. 33.

137 *c*) is composed of two stones, the lower being worked with a cavetto and a band, the upper with two bands, the second projecting boldly over the first. The projection is cut away underneath so as to intensify the depth of the shadow. An ill-cut, pendulous cyma moulding is placed under the spring of the apse windows. The apse arch is decorated with narrow bands; a rough Greek cross is cut on the keystone with dedicatory inscriptions on either side of it. Almost the same bands appear on the jamb of the W. door (Fig. 137 *d*). Bands decorate the jambs and lintel of the big E. door of the court (Fig. 137 *e*). The capitals of the portico piers are the same moulded imposts as those used on the piers of the nave (Fig. 137 *f*). Two worked lintels are to be seen in the narthex. The first is a fragment near the W. door (Fig. 137 *d*), and I do not doubt that it is part of the lintel of the W. door, as the fillets on it fit those on the jamb. The W. doorway is 1·66 metres wide; we have therefore only about a third of the lintel. The upper of the three bands was inscribed. Above the bands the corner of the lintel is decorated with three semi-circles, about three centimetres deep, resembling the well-known Syrian cusp motive, but in Syria it would have been continued down the jambs, which does not seem to have been the case here. The second lintel is the one already mentioned at the N. end of the narthex (Fig. 137 *g*, and Fig. 133). It belongs to the same type as the other, but has the appearance of being a later imitation. The decorations are quite flat, the bands being indicated merely by incised lines; the cusp motive is misunderstood, and turned into a series of oblong fields filled with semi-circular depressions; a monogram cross fills the medallion in the centre. If I am right in supposing that there was originally an entrance at the N. end of the narthex, it would probably have been arched (*cf.* No. 16), and I believe this lintel to belong to a later period when the narthex was remodelled and the prolongation added, *i.e.*, the latest period of Christian building. The slab in front of the tomb at the S. end of the narthex is decorated with a border of zigzags, and three medallions with crosses. Like the masonry and the mouldings, it suggests rough peasant workmanship. One other fragment of decoration remains to be mentioned—a broken slab,

with the representation of a sword incised upon it (Fig. 137 *h*). It was found in the narthex. Below the N. end of the W. wall of the court, on the inner side, beneath the level of the ground, we came across two large earthenware jars (*cf.* No. 15, but in No. 33 the jars were without spouts). They crumbled before they could be lifted out. A still larger jar, about 1·50 m. high, stands outside the house of one of the Yuruks. He found it buried in the ground and uses it as a water-jar.

No. 36

As has been said, a small oblong room opening into the court lies to the N. of the portico. The N. wall of this room was prolonged so as to enclose a large rectangular area to the E. of the portico. More or less in the centre stands No. 36. The enclosing wall has fallen down to the foundations. It ran due E. then turned at a right angle to the S. and again at a right angle to the W. Opposite the apse of the chapel it was broken by a door; there seemed to have been a porch here, for the walls on either side of the doorway ran out to the E. Immediately S. of the doorway is the base of a pilaster, two others were uncovered at irregular intervals farther to the S., and a fourth against the S.-E. angle of the enclosing wall where an oblong pier, like the piers of No. 33, is still in place (Fig. 139). W. of the corner pilaster there was a grave at the foot of the wall. Beyond the stone shutting in the W. end of this grave there was another worked pilaster base, similar to those in the E. wall, and to the W. of this another grave. The wall ran on for a few metres till it reached three inexplicable foundation stones which are marked in the plan; it seemed to be continued beyond them, but we could trace it no farther, for the rising ground to the S. of the enclosure had silted down, first destroying and then burying the wall. At the point where we abandoned the trench we were 2 metres below the present level.

The small chapel No. 36 has been converted into a Yuruk house since my first visit in 1905. Fortunately I had taken photographs and made a plan of it in 1905. It has neither aisles nor a narthex. Along the interior of the N. and S. walls run shallow bays of three arches supported by engaged piers of

masonry (Fig. 140). The easternmost pair of these engaged piers partly blocked the opening of the apse, and the capitals they carried stood considerably higher than the other capitals, as they had to be accommodated to the arch over the apse. This arch and those over the bays were horse-shoed. In ground plan the apse was stilted inside, but the outer wall formed seven sides of a polygon, three of them broken by round-headed windows, the arches not keyed (Fig. 141). As in No. 33 the arch of the windows impinged on the semi-dome of the apse. On the exterior, the N. and S. walls were set slightly outwards from the apse. There was a straight joint in the stone-work on either side a metre or so from the apse (Fig. 142).[1] The masonry is exceedingly rude, the stones vary greatly in size and are badly coursed, the apse alone is built with any care. A cyma moulding of bad workmanship runs round the apse under the windows, and is repeated in the cornice and at the spring of the window arches (Fig. 143 *a*, and Fig. 144). Another of the same type, but rather shallower, runs round the rest of the church at a slightly lower level (Fig. 143 *b*). A block of this moulding is built carelessly into the N. wall of the church near the straight joint above mentioned. The W. door is covered by a massive undecorated lintel. Like No. 33, No. 36 is an example of rude peasant work. Its plan is interesting as presenting a strikingly close resemblance to the vaulted chapels of Southern France.

The architectural evidence supplied by this group of buildings points to the following historic sequence: the house at the N. side and the church No. 33 are earlier than the court, but the E. portico is very little later than the church (the capitals are the same in both) and the S.-E. chamber of the court must have been built at the same time as the portico. The prolongation of the narthex and the bays at the W. side of the court are later still, the masonry and door mouldings are poorer, and the arches are unmoulded. The epigraphic evidence bears out these con-

[1] See Choisy, L'Art de bâtir chez les Byzantins, p. 112, for the rationale of straight joints. Here they may have been intended to dissociate the wall that took the thrust of the barrel vault from that which took the thrust of the semi-dome.

clusions. With regard to No. 36 and the enclosing wall, they may well belong to the same period as the portico; the system of bays used in the S.-E. chamber is applied to the chapel, the bases of the pilasters against the enclosing wall have the same profile as the capitals of the portico. Church and chapel are too closely related in style to admit of their being far apart in date.

No. 34

Revue Archéologique, 1906.

This church forms part of a complex of buildings which I take to have been a monastic foundation (Fig. 145). There was a courtyard S. of the church, and the ruins of parallel chambers can be seen to the S. and W. The monastic enclosure was entered by a large doorway in the S. wall. The church is of the familiar type: a narthex with a walled-off southern chamber, a nave divided from the aisles by four double columns and two engaged piers on either side, and a stilted apse lighted by a two-light window (Fig. 146). Wedge-shaped windows lighted the aisles. The northern arcade of the nave is standing. Above the capitals of the second and fourth columns from the apse are carved medallions containing Greek crosses. The spaces between the arms of the crosses have been filled in with red paint.

Very little remains of the outer walls, but the masonry is fairly good. There is a moulding round the inside of the apse below the spring of the semi-dome (Fig. 147 *a*). It is irregularly cut, and remarkable chiefly for the small zigzag pattern below the cyma. A zigzag is also to be seen on one of the fillets of the monastery door together with a medallion and cross in the centre of the lintel (Fig. 147 *b*). Fragments of a cornice composed of a notched band, a bevelled cavetto and a narrow ovolo, were lying among the ruins (Fig. 147 *c*).



Fig. 138.—No. 33, moulding round apse.

Fig. 139.—No. 36, enclosing wall, E. side.



Fig. 140.—No. 36, from W.



Fig. 141.—No. 36, apse.



Fig. 142.—No. 36, from S.

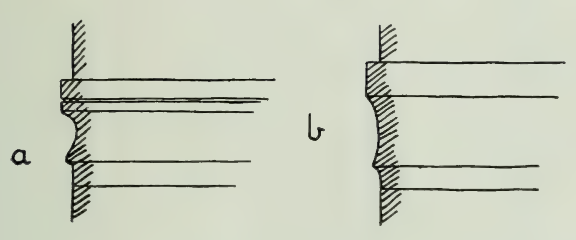


Fig. 143.—No. 36.



Fig. 144.—No. 36, moulding round apse.

10 0 10 20 30 40 FEET

5 0 5 10 METRES

Fig. 145.—No. 34.



Fig. 146.—No. 34, interior from S.-W.

Nos. 35 and 45

Holtzmann gives a plan and elevation of the small portion of No. 45 that still stands, and notes No. 35 as a house.

Crowfoot notices the standing part of No. 45, and mentions that No. 35 is a church.

Revue Archéologique, 1906 and 1907.

No. 35 must be taken in connection with the monastic buildings, No. 45, but the relation between the two could not be determined until we had cleared out the foundations of the ruined monastery. The only part of the latter building which stands above the level of the ground is the group of parallel chambers at the extreme southern end, marked A on the plan (Fig. 148).

Nos. 35 and 45 lie at the N.-W. corner of the village, and probably formed part of the outer defences (Fig. 149). The church was walled off to the S. from the area which we assume to have been occupied by a large monastic enclosure. The wall enclosing the church is carried round the S. and E. sides and breaks off at its northern end against a rocky knoll which served as a strategic angle, blocking the approach to the space between the monastery and the church. Like the enclosing wall of No. 36, the wall E. of No. 35 has oblong bases for pilasters on its inner side, but they are much rougher here than in No. 36. Beyond the southern enclosing wall of the church the land was under cultivation and traces of building had almost disappeared. Piles of stones gave an indication that there had been a wall from the S.-W. angle of the enclosing wall of the church to the small oblong building to the S. In the space W. of the church, between it and the monastery, a double seat or altar is carved out of the native rock (Fig. 150). The long face is turned to the S. North of the church there is a chamber, partly rock-cut, in the side of the knoll (Fig. 151; it is indicated in the plan). On the N. side of the chamber there is a grave with an arcosolium, three small rock-cut niches standing back on a ledge above the level of the grave to the E. and a single niche to the S. Masonry of the Christian period completes the S. wall and forms a W. wall, in which there is a door. Farther to the N.-W. of the monastery there is another

rock-cut chamber against the slope of the hill-side. It may have been a tank or a magazine for stores. The S. wall is broken down; possibly it was once filled in with masonry.

Of the church, No. 35, only the N. and W. walls are standing, but the foundations of the S. wall can easily be traced, together with those of the E. wall and the apse. There was no narthex. The apse was horse-shoed inside and polygonal outside; there were a nave and aisles divided by two masonry piers on either side. The piers are standing up to various heights. Opposite to them were responds in the walls, indicating that there existed arches between the piers and the walls. I think it probable that the church was roofed with a dome flanked by barrel vaults as in No. 39 (see below). The windows, if there were windows in the outer walls, must have been placed very high up, for there is no trace of them either in the W. wall (Fig. 152), or in the N. wall, part of which is standing to a considerable height. If the church was domed, the nave may have been lighted by windows in the dome or drum. The spring of the aisle vaults cannot be seen on the inner side of the N. wall; these vaults must therefore have been unusually high, and the aisles would be dimly lighted by windows in the dome, if they had no windows of their own. Probably there were windows in the apse. The outer face of the walls was broken by shallow pilasters. It is possible that in the N. wall the pilasters were not continued above the point at which they are now broken off. In the W. wall they are carried up only to a point a little below the level of the lintel, where they are replaced by a decoration of arches, one above the door, one above each of the niches on either side of the door (Fig. 153). The arch over the northern recess is the best preserved. It was constructed in three concentric courses of voussoirs, the inner two of brick, the outer of stone alternating with brick (two bricks between each stone). The tympanum was filled in with five upright stones, three set forward and two set back, tile-work and mortar completing the curve above them. The moulding round the door is concave with oblique bars across the corners; in the centre of the lintel a cross without the usual medallion (Fig. 154 *a*). The cross differs slightly from the ordinary type,

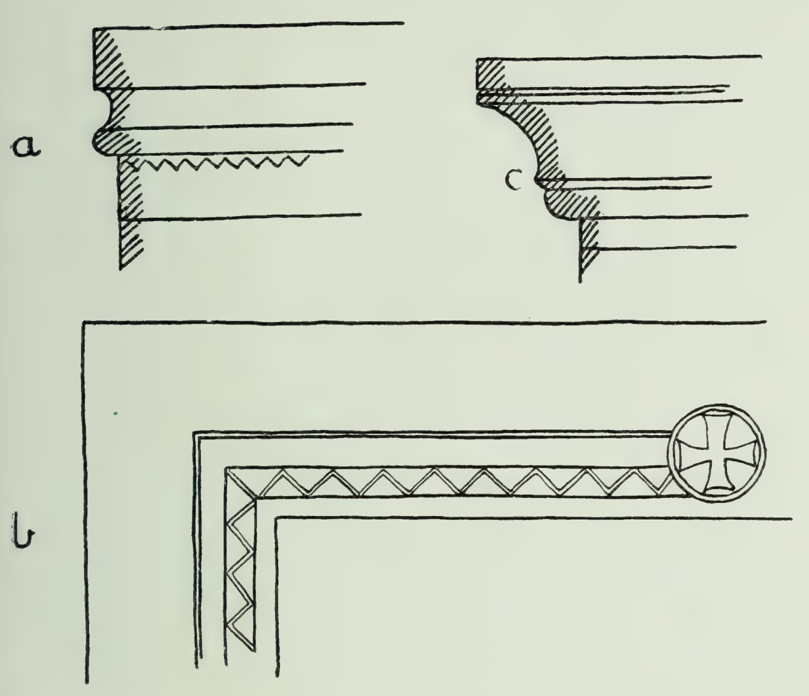


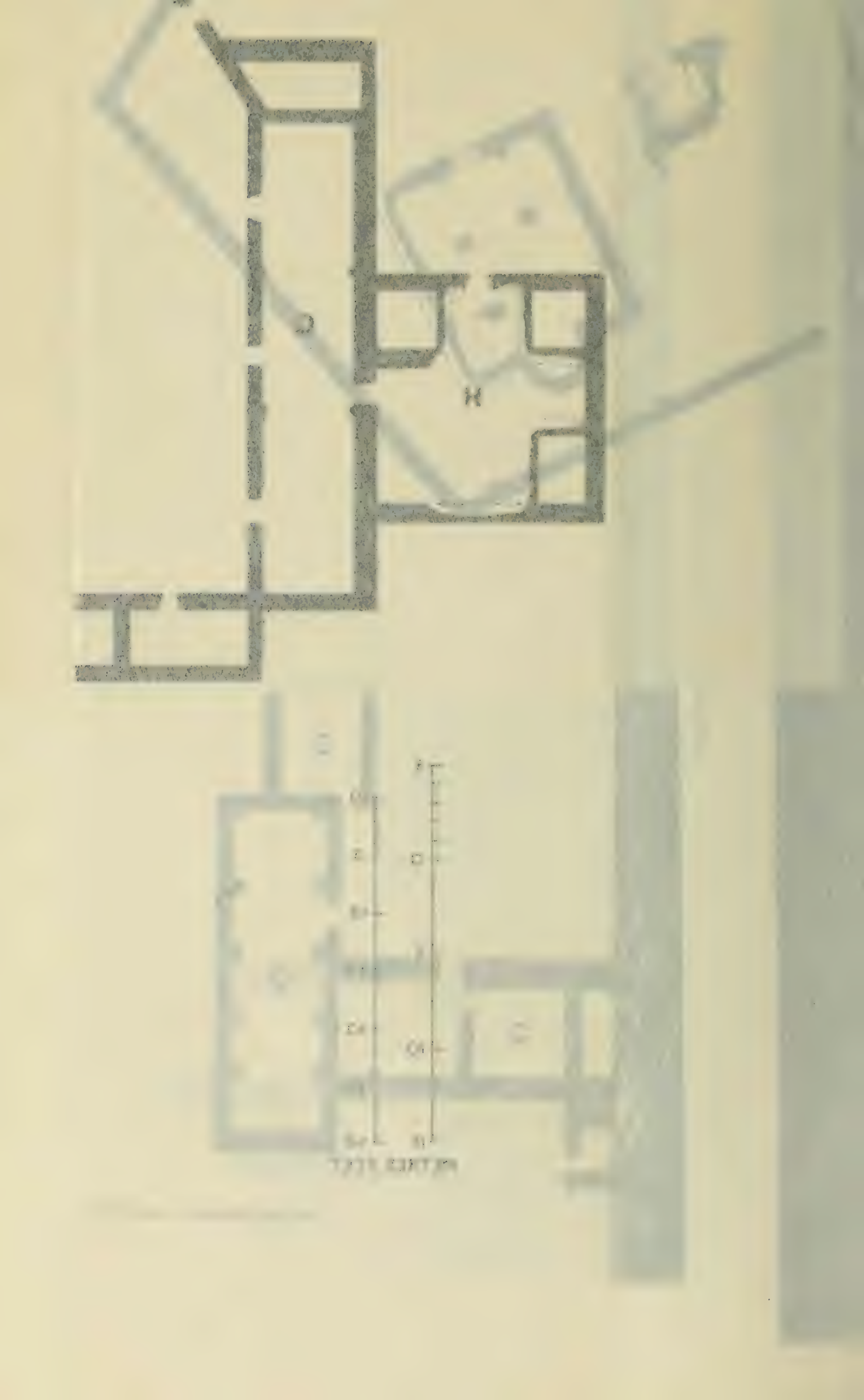
Fig. 147.—No. 34.



Fig. 149.—Nos. 35 and 45, from S.



Fig. 148.—Nos. 35 and 45.



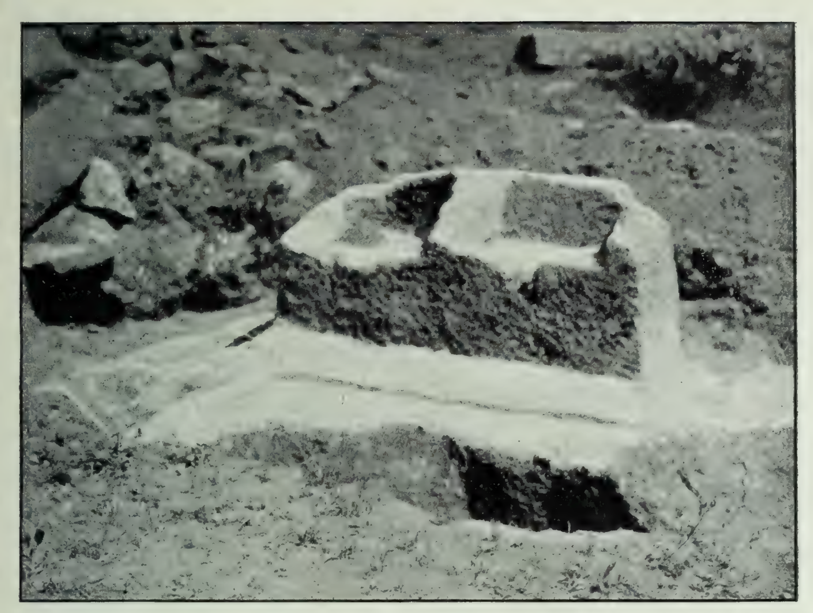


Fig. 150.—No. 35, rock-cut altar.



Fig. 151.—No. 35, rock-cut arcosolium and niches.



Fig. 152.—No. 35, exterior of N. wall.



Fig. 153.—No. 35, W. facade.

the arms being connected with one another at the outer points. The only other moulding in the church is one that ran round the outside of the apse, a wide band notched in the middle, and a small cavetto. Fragments of it remain in place (Fig. 154 *b*). Against the S. face of the S.-E. pier is an upright slab carved with a Latin cross and edged with fillets (Fig. 154 *c*), the decoration being on the W. face of the slab. It partially blocks the S.-E. end of the aisle, and, like the slabs of No. 31, it is probably in its original position.

The masonry is of small stones, not smoothly faced; the marks of the transverse drafting can be seen in Fig. 152. In plan, the church is unusually irregular, even for the Kara Dagh. The aisles are not the same width, the piers are not accurately aligned with each other or with the responds, the pilasters in the outer wall are not of the same size nor are they equidistant from one another. Sir W. Ramsay considers No. 35 to be a good example of peasant workmanship, planned and executed by local builders.

No. 45

The standing block of the monastery, marked A in the plan, was in two storeys, both barrel vaulted, the vaults faced with dressed stones. In the eastern half there was but one chamber on each floor, and the upper chamber is preserved (Fig. 155). The western half had three small chambers on the ground floor; the upper storey has fallen (Fig. 156), but the spring of the two vaults can be seen on the inner wall. An arched doorway, the arch set partly in the vault, connected the upper storey room to the E. with the corresponding room to the W. The S. wall has fallen completely, the N. wall is preserved in part. In the E. wall there were two doors, one leading into the lower, one into the upper storey (Fig. 157). The upper door, as Crowfoot observed, must have been approached by outstanding wooden steps, for the lower door is immediately beneath it. The lintel and jambs of the lower door are plain; they were presumably hidden by the stair. Above the lower door there is a simple moulding running across the face of the wall and

forming the sill of the upper door. Above this moulding the wall is decorated in a manner almost exactly similar to the decoration on the W. wall of the church. Shallow pilasters break the face of the wall, concentric brick arches with the same filling of upright stones cover the niches, and the moulding on the door is like that on the W. door of the church. A good deal of the facing has fallen away, showing the rough rubble work behind. One additional feature was introduced into the decoration; the fourth of the six courses of stone between the string-course and the arches is replaced in part by short bands of tiles. In the niches the tiles are set in a herring-bone, but on the pilasters they are placed horizontally.

The remainder of the monastery is ruined down to the foundations. To judge from what remains of the facing of the N. wall of block A, the next block of parallel chambers, B, had no second storey. A very thick wall separated the two rooms of this block. The western room had a door in the W. wall leading outside the monastic precincts. It is the only door which opened on to the outside. Block C consisted of two rooms opening into each other and into the monastery court. In the northern room were two engaged piers of masonry which probably carried a ribbing arch. No doubt the whole monastery was barrel vaulted. Block D is a long chamber at right angles to block C. Set along the interior walls are four engaged piers for ribbing arches. Block E is a small oblong chamber running E. and W., and opening, as does block D, into the court; block F a group of three chambers running N. and S., with doors into the court; block G a long hall at right angles to block F, with three doors into the court, the vault strengthened by two transverse arches, of which the engaged piers remain. The eastern end of block G is much ruined. There seemed to have been beyond it a small irregular room from which the enclosing wall of the church ran out. There had been a large door in the wall immediately beyond this irregular room. To the N. of block G, and opening into it, was an almost square block, H, much ruined. The ground plan bore a striking resemblance to No. 39. A door in the E. wall faced the church. The monastery buildings do not lie true to the points of the compass, though

Fig. 154.—Nos. 35 and 45.



Fig. 155.—No. 45, from S.

Fig. 156.—No. 45, from S.-W.

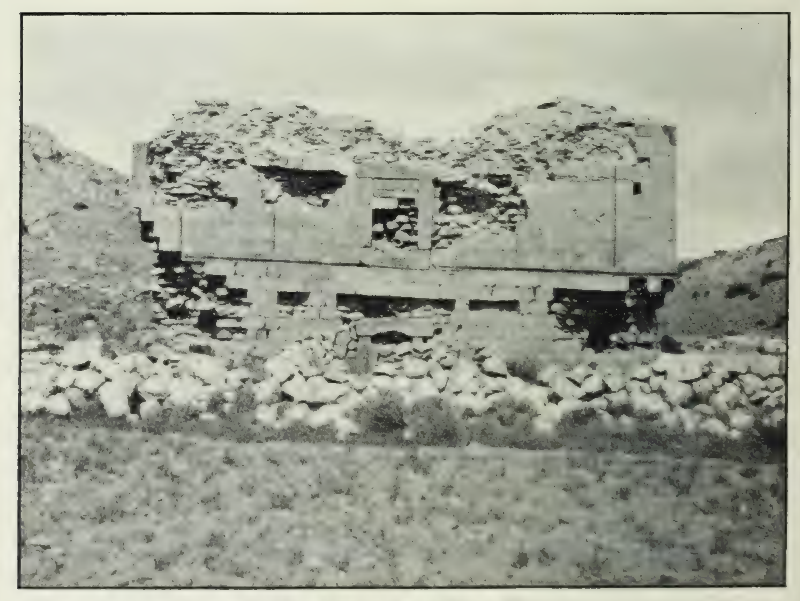


Fig. 157.—No. 45, from E.

for the sake of brevity I have assumed them to do so. The church, however, is oriented with tolerable exactitude.

Such lintels as remain in the monastery all bear a cross in a medallion. Most of them are of the same type as the W. door of the church, and the upper door of block A (Fig. 154 *d*). In one case the upper member of the lintel is decorated with incised lines roughly repeating the herring-bone pattern of the brick-work and perhaps suggested by it (Fig. 154 *e*, and Fig. 158). The size of No. 45 precludes the possibility of its having been merely a private house. As far as can be judged, the whole group of buildings, monastery and church, belong to one period.

No. 36

See No. 33.

No. 37

Revue Archéologique, 1906.

No. 37 has the typical plan of a memorial chapel and is proved by an inscription on the N. wall to belong to this class (Fig. 159). It is connected with buildings lying to the S. of it, possibly the house of the man (his name was Paul) who is mentioned in the inscription. If this be so, we have here another group of the same character as No. 33. Little remains of the chapel, and of the house nothing but an entrance chamber and the wall connecting it with the chapel (Fig. 131, frontispiece, right-hand corner). The rising ground to the E. has slipped down, destroying and burying the walls of the house, which, as in all domestic architecture, are of poor quality. In the course of a few years the chapel also will be buried; the semi-dome of the apse has fallen since 1905. The chapel is a cruciform with a stilted apse. On the keystone of the arch over the apse there was a Greek cross and an inscription (*cf.* No. 33). The S. transept ends in a door leading towards the house; one of the jambs remains. There is another door at the end of the nave; here, too, one jamb is standing. Beyond the W. door there is a straight joint in the masonry of the walls which are then continued for 2·50 metres, forming a kind of porch which may possibly have had no roof (*cf.* No. 22). The Yuruks had dug down into the ground inside

this porch and declared that they had found a grave. Paul may therefore have been buried in the porch of his chapel just as Victorius was buried in the narthex of No. 33.

The masonry was of large stones and fairly good. A shallow cyma moulding formed a cornice round the exterior of the apse and was repeated on the stones from which the apse arch had sprung (Fig. 160). The moulding on the W. door jamb was a very shallow wave-like profile between notched bands (Fig. 161). The chapel must have been roofed with a small dome and barrel vaults. There are traces of fresco in the apse and N. transept.

No. 38

Revue Archéologique, 1906.

A very small chapel. I have nothing to add to the plan published in the Revue Archéologique (Fig. 162). The masonry is execrable. There are no mouldings or decorations.

No. 39

See No. 43.

No. 40

No. 40 is completely ruined. It was a small church with a nave and aisles but no narthex, measuring thirty paces from the chord of the apse to the W. door. Three oblong piers on either side divided the nave from the aisles. The lintel and jambs of the W. door were decorated with a concave moulding with oblique bars across the corners (Fig. 163 *a*). It was however cut deeper than is common, and there was no medallion on the lintel. I found a piece of moulding among the ruins, presumably a cornice, composed of a notched band, a cavetto, a bevel and a smaller cavetto (Fig. 163 *b*). Near the S. wall there was a grave which had recently been opened by the Yuruks. A little farther to the S. there was a rock-cut sarcophagus.

No. 41

A small ruined chapel without aisles, a little way N. of No. 8. The line of the apse could be made out.

Fig. 158.—No. 45, door in monastery.

Fig. 159.—No. 37.



Fig. 160.—No. 37, moulding in porch.



Fig. 161.—No. 37, door jamb.

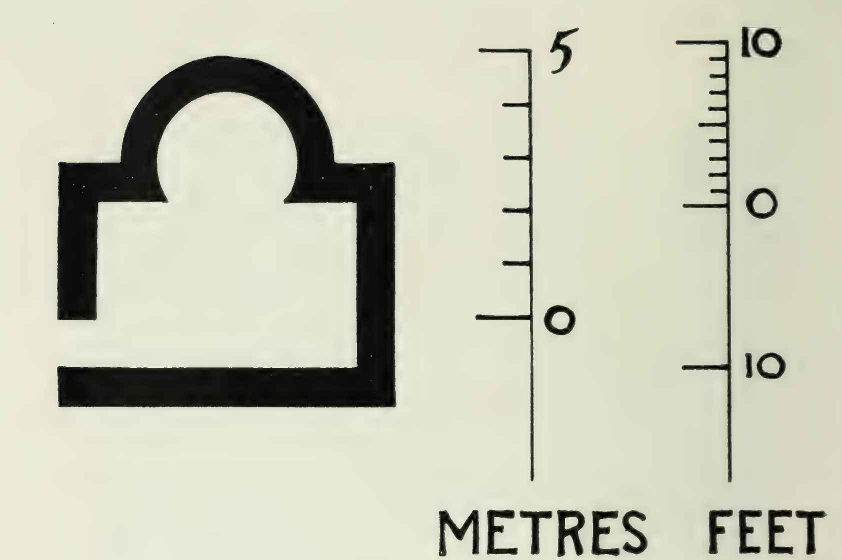


Fig. 162.—No. 38.

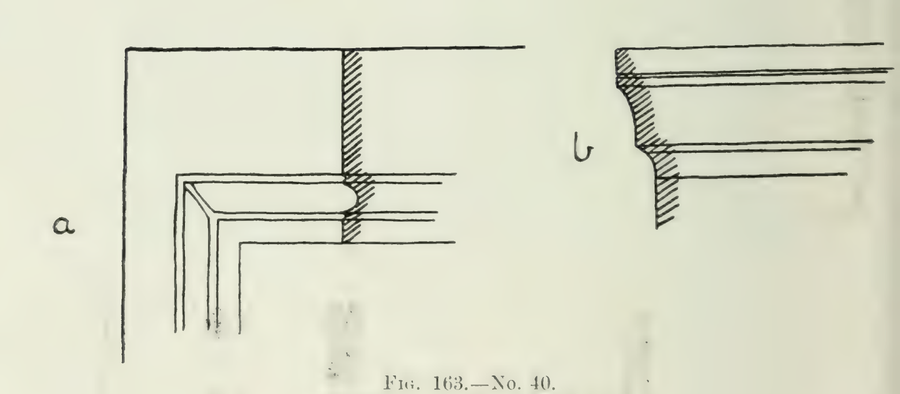


Fig. 163.—No. 40.

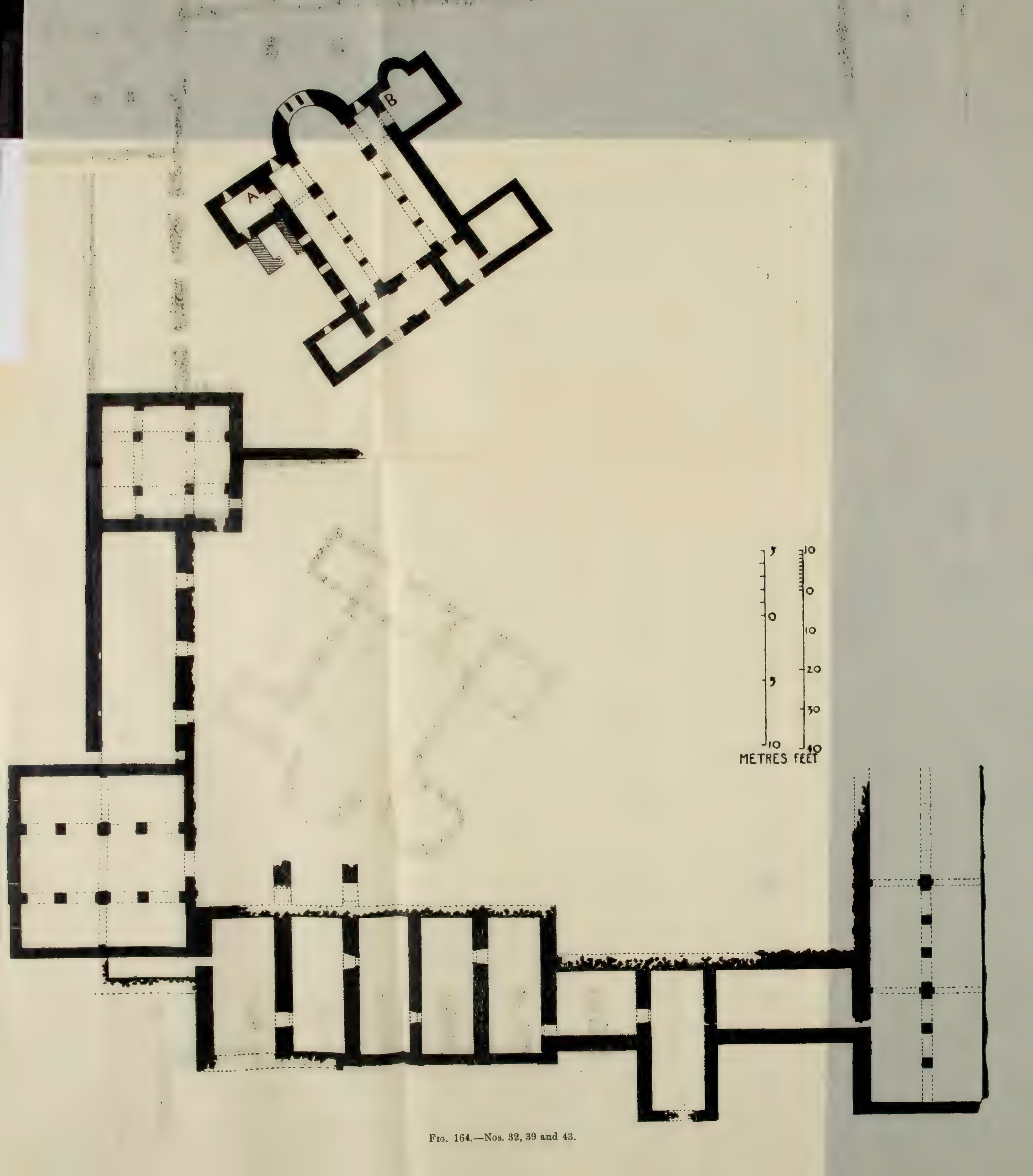


Fig. 164.—Nos. 32, 39 and 43.



No. 42

See No. 31.

Nos. 32, 39 and 43

Kleinasien: Crowfoot supplied Strzygowski with a plan and photographs of No. 32.

Holtzmann: A plan, and elevations of Nos, 32 and 39.

Revue Archéologique, 1906. I did not understand the connection between the buildings.

The group of buildings in the centre of the village consists of a church, No. 32, and a large monastery with a tower, Nos. 43 and 39 (Fig. 164). We found by excavation that the monastery No. 43 and the tower No. 39 formed one continuous building, as was suggested by Strzygowski in his review of my papers in the Revue Archéologique.[1] It is more difficult to decide the relation in which these two stood to the church No. 32, but it is certain that they cannot be regarded as the outcome of one comprehensive plan, like the church and monastery Nos. 35 and 45, the church being quite different in architectural style from the monastery.

Nos. 39 and 43

As in the case of No. 45, the monastery No. 43 is not oriented exactly to the points of the compass. It forms two sides of a square, and the W. front lies a few points to the E. of S. and to the W. of N. not due N. and S. For the sake of brevity I shall disregard this discrepancy. The whole of the W. side of the square consists of two-storeyed buildings, the lower storey being in the nature of a vault. In this respect it resembles block A of No. 45. In No. 43 we were able to determine with tolerable precision that these vaults were not intended for dwelling purposes, for they were not lighted. Under the five parallel chambers at the northern end of the W. block most of the vaults are still accessible. They communicate with one another by doors and open into the monastic enclosure; I think there was a door in the E. wall of each vault, but this wall has been

[1] Byzantinische Zeitschrift, 1907, p. 378.

largely remodelled by the building of Yuruk huts against it, while the darkness and dirt of the interior made lengthened observation difficult and exasperating. Except for these doors there were no openings in the E. wall, nor were there any to the W.; indeed on this side there had been a mass of low structures without superstructures, which precluded the possibility of lighting from that direction. The vaulted substructure had been carried on under the three chambers to the S. of the five parallel chambers; the vaults here have fallen in, but traces of them remain, and we found the door in the W. wall which had given access to them. Finally the big hall to the S. had also rested on vaults, part of which had fallen in since my visit in 1905, carrying away the bases of the eastern piers visible in 1905.

This hall is the largest chamber in the superstructure (Fig. 165). It was divided down the centre by eight piers arranged in a rhythmic succession of two square piers and one larger cruciform pier. The cruciform piers (there were two of them) had carried transverse arches across the barrel vault, the responds which had received the northern end of the arches were visible in the N. wall; the S. wall has fallen. Like the piers and responds of No. 35, they were by no means accurately placed opposite one another. To the N. of the hall there are three chambers, two lying N. and S. and one, between the two, E. and W. This last projects slightly beyond the W. line of the hall; the W. wall has however mostly fallen away. To the N. of the three chambers are the five parallel chambers mentioned above. All these rooms communicate with one another; in all of them the E. wall has fallen, except for one fragment that stands immediately to the N. of the great hall, and a few stones towards the northern end of the parallel chambers. Save for a few breaches, the W. wall is perfect; there are no windows in it, the rooms must all have been lighted by windows in the E. wall looking out into the monastery court. As far as we could make certain there were no doors in the W. wall, but it is not possible to be quite sure of this owing to the breaches in the wall. It has been mentioned that to the W. of the building there were traces of one-storeyed vaults; the same applies to



Fig. 165.—No. 43, from S.-E., showing hall with arcade.

Fig. 166.—No. 43, door in sub-structure and moulding on façade.



Fig. 167.—No. 39, from N.

Fig. 168.—No. 39, from S.-E.

the E. side, though I could not obtain a plan of the ruins here, partly owing to their hopeless decay and partly to the presence of a Yuruk house. Opposite the second from the N. of the five parallel rooms we could distinguish remains of walls running E. broken by doors in the N. and S. sides. There was a door here in the E. wall of the main building leading into the vault below the upper chamber. In the northern of these two projecting walls there was a doorway carefully arched (Fig. 166; the top of the arch can be seen in the right-hand bottom corner), but I could not follow the wall farther owing to the fact that it broke off and disappeared under heaps of débris. It is however certain that these vaults to the E. of the main building belong to the Christian period, and that they can only have been one storey high, as is shown by the outer decoration of the upper part of the E. wall of the main building.

In the northernmost of the five parallel rooms of the upper storey a small door led out to the N. It seemed to have opened into a narrow passage, to the W. of which there may have been a small room partly rock-cut. I marked this room in my former plan, but excavation did not help to confirm it, on the contrary, the passage seemed to have ended in a blank wall.

The N. side of the court consists of three chambers. They are set at a lower level than the upper storey of the W. block of buildings, but not so low as the western vaults. The first of these three is itself a vault or storehouse (or perhaps a stable?) from which the superstructure has fallen. Two arcades of four arches supported by three piers divided it from N. to S. The central piers in each arcade are cruciform in plan and carried ribbing arches as well as the arcade arches. The central and western barrel vaults are standing, the eastern has fallen since 1905. The interior was dimly lighted by four narrow slits in the N. wall. The two that lighted the aisles are marked by semicircular heads in the outer wall, the other two are little more than upright interstices in the masonry. The next chamber to the E., though it is on the same level as the aisled vault, is not a substructure but a living room. It is a long chamber with no vault beneath it. Access from the court was provided by three doors in the S. wall; there seemed to have been a small door

in the N.-W. corner opening outside the monastery. There were arched niches in the N. wall and a recess in the S. wall with a stone shelf in it, and the marks of a door, doubtless a cupboard. (A complex of very rude walls ran out to the S. of this chamber, but they did not belong to the Christian period.) The third chamber was the tower No. 39, almost square in ground plan, lying at the N.-E. corner of the court (Fig. 167). Four masonry piers carried four large arches above which was a square structure which I make no doubt was the tower of a dome (Fig. 168). The piers were connected by arches with responds in the walls; thus forming an interior cruciform. The four arms of the cross had been barrel vaulted, the outside of the vaults reaching up to the first course of stones above the large central arches. Above this, the wall of the tower had been decorated with a system of niches to be described presently. The four small chambers at the corners had probably been barrel vaulted also, for there is no example of cross ribbed vaulting in the Kara Dagh and small domes would be most improbable. Two doors in the S.-W. corner communicated with the court. The W. side of the tower had been turned into a cowshed by the Yuruk who inhabits No. 32; the ground to the E. served him as a melon garden, and in clearing it out he had piled the stones into a rough wall that stretched from the S.-E. angle of the tower almost to the N. wall of the narthex of No. 32. Though the greater part of this wall was the work of Hassan the lower courses were too evenly laid for a Yuruk builder, and the wall must have originated at some time during the Christian period. Very different in character was a wall built out southwards from the S. wall of the tower which it touched a little to the E. of the middle. This wall (a few stones of it can be seen at the bottom of Fig. 168) was part of the original plan, the masonry being exactly the same as that of the tower. It was not jointed in to the tower wall, but that could scarcely be expected from an architect of Deghile. I traced it for about 9 metres; it was useless to attempt to follow it farther because the good Hassan had cleared away all the ruins in front of his house. Moreover, I believe that the S. end of this wall had been cleared away long before Hassan's time to make room

for the church No. 32. What buildings, if any, had existed at the S.-E. angle of the monastic court, or whether anything stood in the centre between the church and the monastery, it would probably now be impossible to discover, the ground having been too much disturbed by cultivation and by the consequent clearing away of stones.

The masonry of the monastery and tower is of a good solid kind made up of small stones. Its character is exactly the same as that of Nos. 35 and 45. The interior doors in the upper storey have generally a roughly moulded lintel and jambs (the concave moulding between notched bands) with a relieving arch over the lintel (Fig. 169). In two of the doors the lintel is not carried through the whole width of the wall and they are therefore arched on one side. In the door in Fig. 170 there has been a lintel, but it has been cut through. As in block A of No. 45, the arches are set into the vault. The jambs were often not sufficiently tall for the doors and had to be supplemented at the bottom (Fig. 169). The arched niches in the walls can be seen in Figs. 169 and 170. The doors from the court into the vaults on the lower storey have no relieving arch. The mouldings are of the same type as those on the doors in the upper storey, but rather more carefully worked (Fig. 171 *a*). All the upper chambers were barrel vaulted. There are holes for cross beams a little way up the vault (Fig. 170). The mouldings round the S. doorway of the aisled chamber in the N. wing are very careless. The lintel is merely a long piece of the same moulding as the jambs (Fig. 171 *b*) laid across the latter and not worked into them at the corners. The mouldings round the opening of the cupboard are of the same concave profile but more deeply cut. The thick piece of wall between the northernmost of the five parallel chambers and the W. aisle of the aisled chamber is clearly a makeshift. It is two walls laid together, the aisled chamber having been added after the W. chamber was finished. There is a bit of the moulding that runs along the E. face of the W. block built into the N. wall of the W. aisle. This is not a proof of the later date of the aisled chamber, though that part of the building was probably not begun till the western chambers were completed. The bit of moulding is merely a superfluous

worked stone that was used in an inconspicuous place (*cf.* No. 36).

On the exterior of the W. wall of the five parallel chambers there are shallow pilasters arranged so as to form buttresses covering the width between the interior transverse walls; they do not begin until some two metres above the level of the ground. In the lower part of the wall the masonry is rough; probably it was hidden by the vaults to the W. above mentioned. All round the interior of the court the upper part of the walls was broken by niches. At the level of the upper storey a cyma moulding runs along the face of the W. wall four courses above the lintels of the vault doors (Fig. 171 *c*, and Fig. 166). Below the moulding the wall is plain, above the moulding it is niched. The system of the niching is as follows: one wide stone is set forward, the two next stones back, one a little behind the other, then one forward, one back, one forward, and then again the wider stone set forward. Two of the niching stones can be seen above the cornice in Fig. 166. The arrangement of the stones sometimes varies slightly from the above description, but the general effect is much the same. This decoration runs along the N. wall of the great hall, the E. wall of the western block, the S. wall of the two western rooms and the W. wall of the tower as far as the W. door. On the S. wall it does not rest on a cornice above a straight wall, since there are no vaults here, but starts from the level of the ground. Finally, it is to be seen in the upper wall of the tower, where it appeared above the vaults of the lower storey, and here it can be observed that the outstanding stones of the niches were broken at intervals by horizontal bands of tiles. There can be no question but that the other parts of the façade contained tiles also. I observed fragments of tiles scattered through the masonry of the monastery, filling up interstices between the stones or used to help out difficult corners; tiles were therefore plentifully to hand at the time the monastery was built. Even without this evidence and that supplied by the tower, it would be reasonable to pre-suppose tile decoration in the façade on the analogy of No. 45. In all other respects the buildings closely resemble one another. A few mouldings remain to be described. The capitals of the piers in the great hall and the

Fig. 169.—No. 43, door in monastery.

Fig. 170.—No. 43, door and niche in monastery.

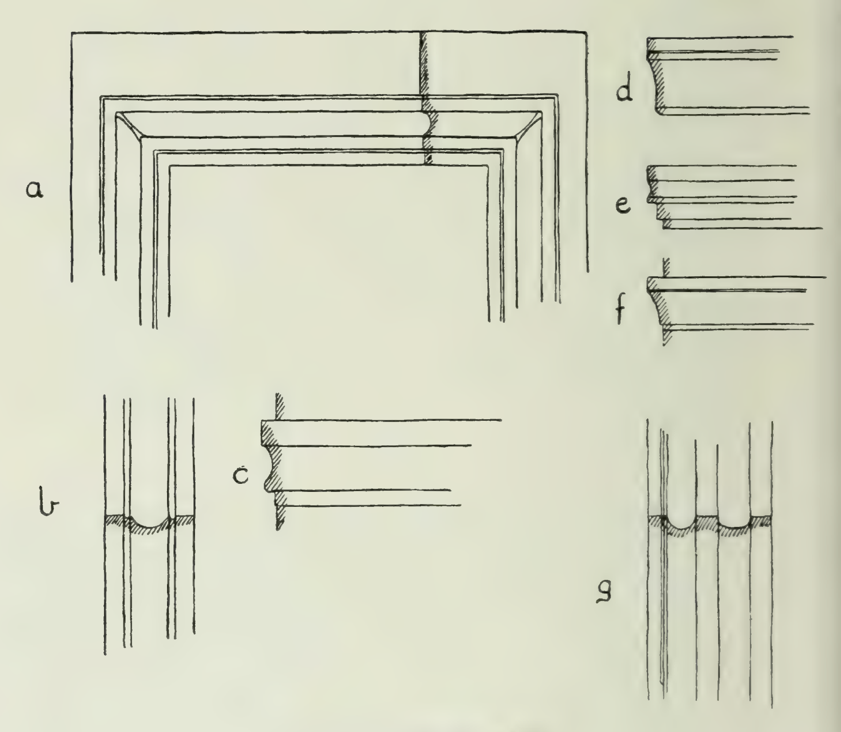


Fig. 171.—Nos. 43 and 39.

aisled vault are simple, roughly worked cavettos. In the tower No. 39 the capitals are not the same on all the piers. I give two types: Fig. 171 *d* resembles the capitals in the great hall and aisled vault, Fig. 171 *e* is a piece of concave moulding with two bands below the groove and was probably not cut for the position it occupies. A shallow cavetto moulding (Fig. 171 *f*) is placed under the spring of the four big arches. The jamb of the W. door is worked with deep flutings and bands recalling the niche decoration beside it (Fig. 171 *g*).

No. 32

When I visited the Kara Dagh in 1905 this church was standing in almost exactly the same condition as when Crowfoot photographed it (Fig. 172). Only the arch over the apse had fallen. In 1907 we found it inhabited by a family of Yuruks, who had dug away the earth to the W. so as to give access to the doors, patched up the narthex and turned it into a house, and cleared out the N. aisle, which served as a store-house and a breeding place for fleas. The church could in some respects be studied more easily than in 1907. Unfortunately the storms of the preceding winter had dealt hardly with the ruins. The arcade of the gallery of the N. aisle, which appears in my photograph of 1905, has now fallen (the double columns and voussoirs still lie upon the wall as they fell); the remains of the upper storey of the narthex have also disappeared.

No. 32 is in four respects unique in the Kara Dagh.

1. The narthex is prolonged on either side beyond the width of the nave and aisles.

2. It is not an open porch, but a fully developed closed narthex with three doorways fitted with doors. (This may have been the case in No. 33.)

3. There was a gallery above the aisles.

4. There were two chambers, one on either side of the eastern end of the aisles, continuing the line of the E. wall. The southern chamber is apsed. Moreover, the arrangement of the supports of the nave and aisles suggests a marking off of the eastern bays of the latter. These two facts seem both to point to an attempt to enlarge the sanctuary.

The W. wall of the narthex is broken by three doorways; one corresponding to each of the interior doorways that led from the narthex into the nave and aisles (Fig. 173). All the six doorways were originally fitted with doors. In the façade a high relieving arch covers each lintel; there was a small oblong window in the tympanum of the arch. The upper storey was divided by a moulded string-course from the lower. An arched window above the N. door could be seen in 1905, and the remains of a pair of arched windows divided by a double column above the central door. The rest of the wall, with the window above the S. door, had already fallen. The two wings formed two separate chambers and the S. end of the narthex proper was walled off into another chamber, while the central and northern parts were separated only by a ribbing arch. The N. wing was entered by a small door in the S. wall, and lighted by a wedge-shaped window in the E. wall. The S. wing opened into the southern chamber of the narthex; probably it too had had a window to the E. but the wall here had been ruined and roughly repaired by the Yuruk proprietor. As regards the upper floor, Crowfoot's photograph (Kleinasien, p. 19) shows a door between the N. wing and the N. end of the narthex. This door led from the upper chamber of the N. wing into the upper storey of the narthex and thence, as Crowfoot observes, into the gallery over the aisle. It is evident from Fig. 172 that in the upper storey the centre of the narthex was not walled off from the nave. The upper arcade of the nave ends to the W. in an oblong pier. From this pier sprang three other arches. The western arch, wider and higher than those of the arcade, stretches across the narthex from E. to W. and forms in the upper storey a continuation of the arcade; the northern arch stretched across the W. end of the gallery and the southern arch across the nave. It is reasonable to suppose that a similar arrangement existed at the opposite end of the upper arcade, *i.e.*, that from the two eastern piers sprang transverse arches across the nave and aisles. On the ground floor the nave was divided from the aisles by three double columns, a large pier and two engaged piers on either side, the large pier corresponding to that which stood at the eastern end of the gallery.



Fig. 172.—No. 32, from S.



Fig. 173.—No. 32, from W.



Fig. 174.—No. 32, windows in apse.

The apse was lighted by a group of three horse-shoe arched windows divided by two double columns (Fig. 174), the aisles by three arched windows in the long walls (they are not marked in the plan on the S. side because this wall is ruined) and a wedge-shaped window to the E. Doors led from the E. end of the aisles into the chambers to N. and S. We satisfied ourselves by careful examination that these chambers were a part of the original plan and not a later addition. There was cause for hesitation on this point. The string-course that runs round the exterior of the apse and the E. wall of the aisles breaks off abruptly on the N. and S. walls of the aisles at the points marked A and B on the plan, as though the eastern walls of the side chambers had been built against the finished walls of the church. If that had been the case the supposition would be necessary that the parts of the walls round the N. and S. doors had been pulled down and rebuilt when the chambers were added and the doors cut through. In support of this theory it must be mentioned that the wall W. of the S. door in the S. chamber is of a different character from the rest of the outer wall of the church. The facts that led us to the conviction that the chambers were not a later addition are these :—

1. The string-course is carried without a break from the S. wall of the aisle round the W. wall of the S. chamber. It was also carried round the N. chamber.

2. The N. and S. doorways cannot have existed except for the purpose of entering the chambers, for the doors were hung on the interior, not on the exterior, as they would have been if they had originally been placed in an outer wall, and the jambs and lintels are moulded on the inside. But these doorways belonged to the original design ; the masonry round them has not been disturbed as it must have been if the doorways had been cut through walls already existing.

3. At A there is a bit of moulding upside down and a very rough bit of masonry under the fragment of string-course above mentioned. On any supposition, the wall here must have been part of the original church. But such careless masonry could not have existed on an outer wall, it could only occur on an inner wall where it would be covered with plaster. This ex-

plains too the roughly faced masonry in the S. chamber. It was treated from the first as an inner wall that could be plastered over.

The N. chamber is perfect inside (except the vault, which has fallen), but much ruined outside. The facing stones have fallen away in part, and piles of rubbish and loose stones have been heaped against the walls to prevent them from falling altogether. The windows are blocked, but there seemed to have been two, both wedge-shaped, one (certainly) in the E. wall, and one (perhaps) in the W. wall. The latter had been built up at the time when a small oblong chamber was added against the N. wall of the church, W. of the first chamber. This second chamber was certainly a late addition; the flat moulding that runs all round the original building could be seen on the inside of the E. wall of the new chamber (*i.e.*, the outer W. wall of the old chamber); it disappeared into the later masonry and emerged on the other side. The western chamber was roughly and badly built, but the masonry indicated that it belonged to the Christian period, though to a late date. The S. chamber was apsed. There was no window in the apse, and the walls were too much ruined to permit the distinguishing of window openings. I have no doubt that the existence of these two chambers should be taken in connection with the fact that the eastern bays of the aisles and naves differ structurally from the other bays, and are larger than they. The eastern bays and the side chambers were intended as an enlargement of the sanctuary.

Crowfoot compares the masonry of No. 32 with that of No. 31, to the disadvantage of the latter. I do not agree with him, and the photographs of the W. walls of the two churches will, I think, bear me out (Figs. 118 and 175). The coursing is much more regular in No. 31, all the courses are about the same width, and the stones are kept more or less to the same size. No. 32 offers a marked contrast in these particulars. Perhaps the best test is the stone-laying round the arches. A glance at Figs. 126 and 175 will show how carelessly and unskilfully this is managed in No. 32, how neatly in No. 31. Nor is the facing of the stones as good in No. 32 as it is in No. 31. I believe the

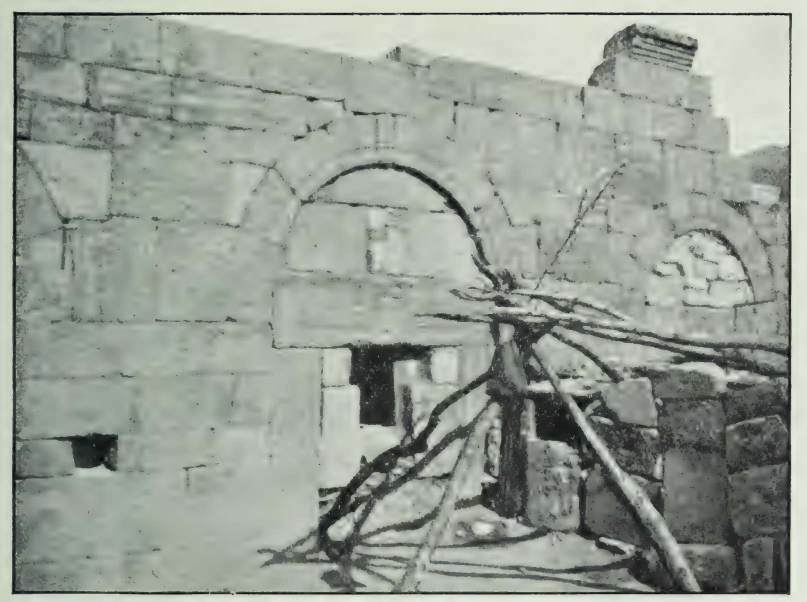


Fig. 175.—No. 32, central and S. door of narthex.

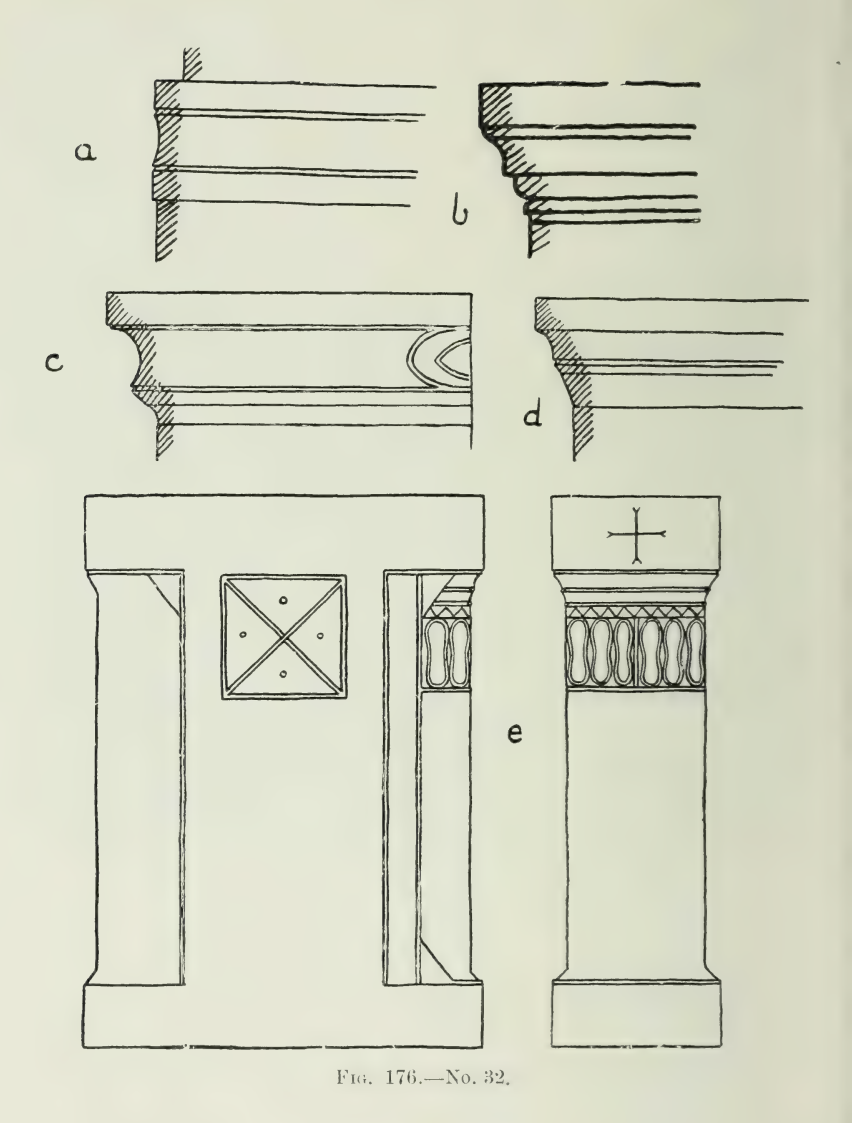


Fig. 176.—No. 32.

churches belong to different periods of building, but No. 31 belongs to the better period.

A concave moulding runs round the apse below the windows and at the same level along the E. wall of the aisles, round the side chambers, along the N. and S. walls of the aisles below the windows, round the wings of the narthex and across the W. façade, where it ends against the relieving arches of the doors to N. and S. of the central door (Fig. 176 *a*). Exactly the same moulding is carried round the apse above the windows, but no further than the apse (Fig. 177). It is extremely shallow in cutting (*cf.* the concave moulding of No. 5) and carelessly laid; for instance on the S. wing of the narthex one of the stones shows the characteristic curved filling of the groove as though the moulding were to have been brought to an end, but it is continued nevertheless on the next stone. Probably a worked stone lay to hand, and the mason employed it whether it was cut for the position he had in view or not. The way in which the string-course ends against the relieving arches of the doors is also noticeable (Fig. 178). The arch has round it a shallow moulding of the same character as the string-course. This moulding turns outwards at right angles at the foot of the arch and ends in a curved filling or fish-tail. The stone on which the corner of the arch moulding is cut impinges upon the band of the string-course and breaks ruthlessly into the groove, though it would have been easy to carry the arch moulding down a few centimetres lower and connect it with the other after the true Syrian fashion. The string-course is not carried through between the doors; this is the only part of the church where it is interrupted. The upper string-course across the narthex, below the windows, has a complicated profile (Fig. 176 *b*), consisting of a band, a bead, a cavetto, a roundel and two bands. The best moulding is the cornice round the apse (Fig. 176 *c*, and Fig. 179): it is used also inside the church below the gallery where, as on the apse, it ends with the usual filling of the cavetto. A similar moulding, but narrower, runs round the inside of the apse below the spring of the dome (Fig. 176 *d*). The jambs and lintels of the W. doors are decorated with shallow grooves, notched on the outer sides, with a bar across the

corners. In the centre of each lintel there is a Greek cross in a medallion, and above it another band of very shallow concave moulding. On the inner faces of the lintels and jambs of the N. and S. doors out of the aisles are the same shallow mouldings. The double columns of the apse windows are roughly marked out into panels on the broad sides and have shallow mouldings to represent capitals, over which falls the triangular shield motive (Fig. 174). They are not wide enough for their position, the springing stones of the arches projecting considerably beyond them (this also applies to No. 31). The construction of the arches should be observed ; there is no true keystone. I do not think that this peculiarity is an indication of date, since it occurs on larger arches in Mahaletch, which we believe to be a much older church (*cf.* too Nos. 33 and 36). The double columns of the nave, both below and in the galleries, bear an interesting decoration (Fig. 176 *e*, and Fig. 180). Round the top of the inner half column (the decoration was not carried round the half column that faced towards the aisle) runs a band of hour-glass shaped flutings. Above these is a band of incised zigzags ; then follow two tiny cavettos divided by a notch, and above these a filleted band with an incised cross in the middle. The face of stone between the double columns is decorated with an incised panel divided off at the top into a square traversed by cross notches with dots between them. This is by far the most elaborate column in the Kara Dagh.

It is quite clear that the church No. 32 does not belong to the architectural group of which the monastery No. 43 is an example, a group that will be illustrated further by No. 44. The character of the masonry is entirely different ; the decoration of niches and tiles, which is the distinguishing feature of the monastic complex, is absent in No. 32. The cruciform domed chapel No. 35, the cruciform chapel of No. 44, these are the types of ecclesiastical architecture that belong to the niched and tile-decorated period. The question to be solved is whether the church is earlier or later than the monastery, and I must attempt to solve it at this point purely on local considerations without diverging into the larger issue of the date of niche and tile which must be dealt with later. It has already

Fig. 177.—No. 32, detail of apse moulding.



Fig. 178.—No. 32, N. door of narthex.

Fig. 179.—No. 32, cornice of apse.



Fig. 180.—No. 32, column in nave.

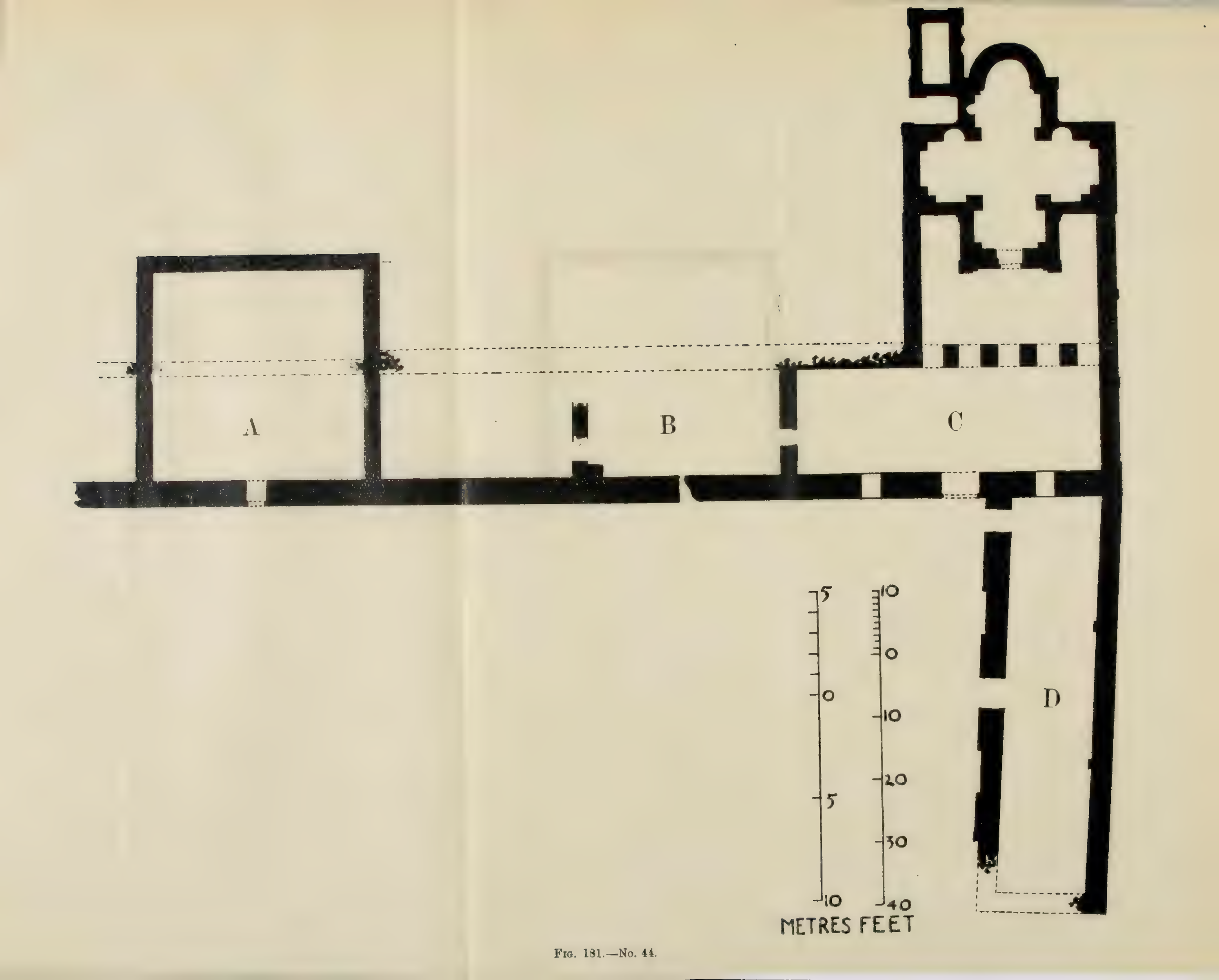
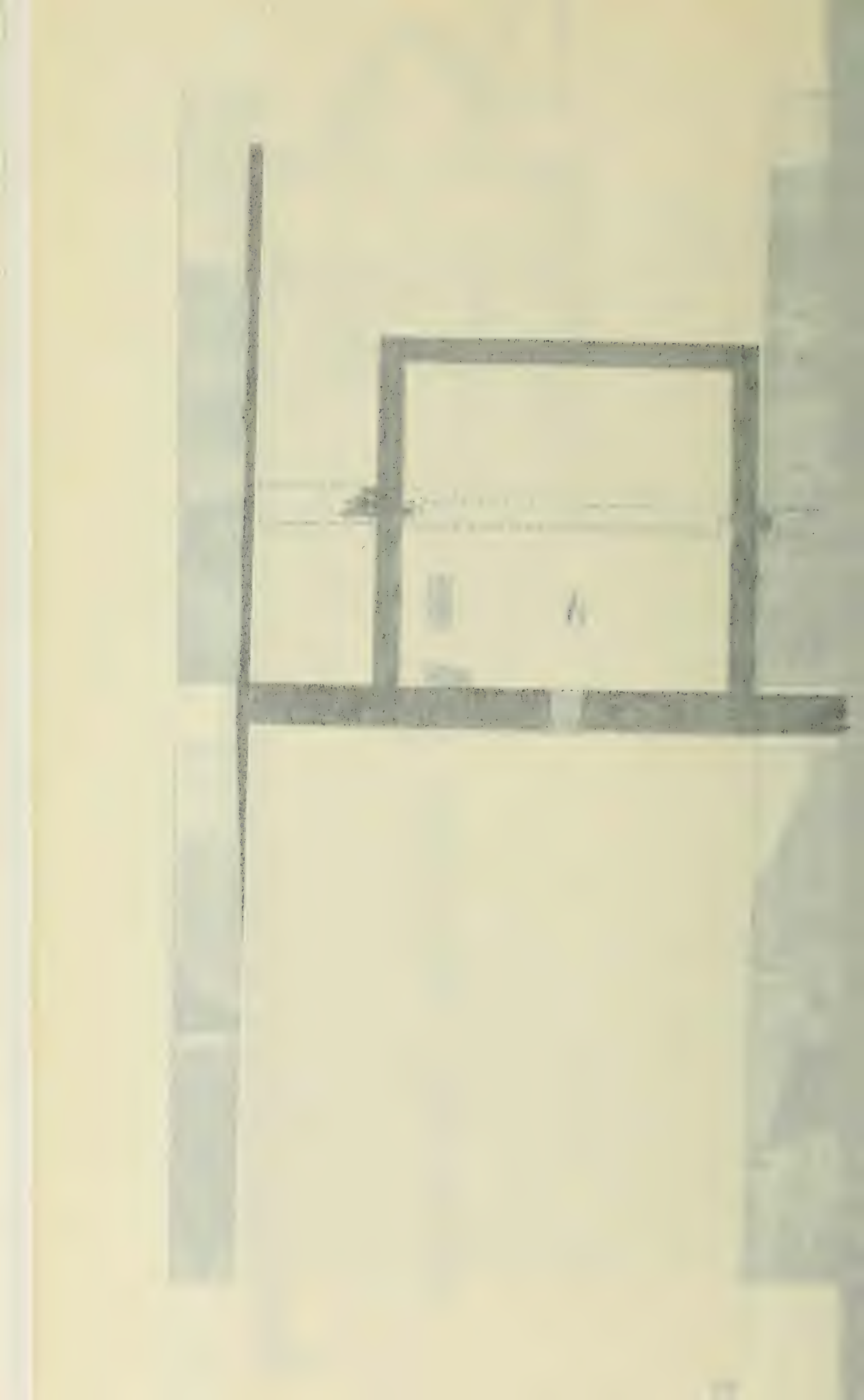


Fig. 181.—No. 44.



been noted that from the southern face of the tower No. 39 a wall, which is part of the original plan, runs out to the S. This wall if it were prolonged would form the eastern boundary of the monastic enclosure, it would pass in front of the façade of the church, and so close to it that it is inconceivable that the two should have been part of the same plan. Even without any prolongation of the foundations that exist, the wall would obscure so awkwardly the northern end of the narthex that I find it impossible to believe they should have been standing at the same time. If the church had been built before the monastery the wall would never have come into existence; the church must therefore be later than the monastery, in which case the greater part of the wall must have been pulled down to make room for the new building. The façade of the church would then form the eastern boundary of the monastery court, and the ruined wall that has been mentioned between the S.-E. corner of the tower and the N.-W. corner of the church, completed the circuit. There must, however, have been originally some church or chapel connected with the monastery. I surmise that it stood within the precinct of the court, and that it resembled in type the church No. 35. It may have been found to be too small for the requirements of so large a monastery, and perhaps the inconveniences of an exiguous sanctuary made themselves felt; it was therefore pulled down, and its place was taken by a new church adapted to the use of a large body of monks and provided with a sanctuary more elaborately extended than any other in the Kara Dagh. How clumsily even here the problem of the sanctuary was solved might be taken as evidence of an early date if it were not more likely to be a result of the remoteness of a mountain village cut off, possibly for long periods, from the rest of the Byzantine world by Arab invaders.

No. 44

Kleinasien: Mentioned by Crowfoot.
Revue Archéologique, 1906.

One more group of buildings in Deghile belongs to the same class as Nos. 43 and 45 (Fig. 181). It is a large monastery with

a chapel, lying at the S.-E. angle of the village on the edge of the southern slope. Together with No. 31 it formed part of the southern defences (Fig. 182). Probably it was connected with No. 31 by a wall, the western end of which is shown in the plan of No. 31. In the depression immediately to the W. of No. 44 there may have been a gate. The present path from Maden Sheher comes up this way. We cleared the chapel and the ante-chamber to the W. of it, and I am therefore able to give a more detailed plan than that which I published in 1905. On the other hand, most of the long N. wall of chamber D has recently been swept away to make room for a melon garden, and I give the measurements that I took on my first visit.

The monastery consisted of one oblong chamber running E. and W., and a number of chambers running N. and S. There are traces of similar chambers further to the N., merely foundations which we did not clear out. The two chambers which form block B exist only in foundation. Block A consists of two parallel rooms, two storeys high. In the W. wall there is a door with a plain lintel on the ground floor, and above it there appears to have been another door (Fig. 183) approached possibly by a wooden staircase like the upper door of No. 45. The buildings to the N. cannot have been more than one storey high ; the upper part of the N. wall of block A is so carefully faced that it must be regarded as an outer wall. Block C consisted of one long barrel-vaulted room with two windows and a door in the W. wall (Fig. 184), a door in the N. wall leading into block B, and in the E. wall five openings divided by piers leading into the ante-chamber of the chapel. Almost at right angles to C (the outer wall is set a little to the N.) is another long room, D. It opened into the space in front of the monastery by two doors in the N. wall. It had been barrel-vaulted, with two ribbing arches springing from engaged piers. All these rooms lie at the bottom of a steep slope. The ante-chamber of the chapel is built up the slope, and was blocked by the ruins that had fallen into it from above. These we partially cleared out. There must have been steps between the gateways from C and the W. door of the chapel. I do not think that the ante-

No. 31. ↓

No. 44. ↓

Fig. 182.—Nos. 31 and 44, from S.-E.



Fig. 183.—No. 44, block A, from W.



Fig. 184.—No. 44, block C, from W.

chamber was roofed. The chapel is a small cruciform of an interesting type. It is not T-shaped, like the cruciforms hitherto described, but in the form of a Greek cross, *i.e.*, an oblong chamber lay to the W. of the apse, forming together with the apse the E. arm of the cross. There is a small apse in the N. wall of this chamber, and similar apses in the E. wall of the transepts, all containing traces of fresco. I do not feel any doubt that the arms of the cross were barrel vaulted, and the centre covered with a dome. N. of the apse are the foundations of a small oblong building attached to the chapel at the S.-W. corner. The walls stand about 0·40 high, and there is no trace of a door. We conjecture that it must have been a tomb.

The masonry is of the same character as in Nos. 43 and 45. The stones are small, except at the upper corners of Block A. As in Nos. 43 and 45, a simple moulding runs across the face of the wall in Block A. Below the moulding the wall is plain and the masonry less well dressed than it is above; both particulars apply also to No. 45. Above the moulding appear the shallow pilasters of No. 45, the tile-work bands, with tiles herring-boned in the niches and horizontal where they break the face of the pilasters, the brick arches with a filling of stones set forward. There are, however, a few differences in detail. In No. 44 the tympanum of the arch was filled with two courses, the lower having three stones set forward, the upper two; they were arranged so as to form a chess-board pattern, and the spaces between them were filled with tiles set slightly back. (There may have been two courses in the tympanum of No. 45, but there was certainly only one in No. 35. In both cases the work at this point was all of stone.) Further, the outer corners of the arch are terminated by brackets roughly moulded. One of these is *in situ*. The same arrangement was probably employed in No. 45 (Fig. 157). The bracket has fallen out, but the space where it stood is visible. These brackets reappear in the W. door of Block C. They stood in true Syrian fashion below the relieving arch at either end of the lintel. One is in place, but it is much defaced. As far as we could see, it was carved with a thick upright stalk having three leaves on either side. The arch here had fallen out; there were traces of tile-work in the

masonry. The two windows had been set back in a niche (Fig. 184, the S. side of the S. window). They too had been arched, but not with tiles.

The special feature of No. 44 is the decoration of the lintels and jambs. This can be studied in the W. door of Block C and in the W. door of the chapel. Among the ruins S. of Block A lay another lintel which may have fallen from the upper door in the W. wall. All three lintels are of the same type, but the chapel doorway is the most elaborate (Fig. 185). In the centre, in a medallion, is an eight-pointed star which stands for a Greek cross. Below a narrow band there is a row of diamonds, set in a cavetto or groove and interrupted only by the medallion. The diamonds are laid alternately lengthways and upright, the uprights being very slender. The right-hand corner is filled with a leaf, the left-hand corner with one of the larger diamonds, the slender diamonds being omitted on either side of it. Then follows another band and a shallow cavetto or groove, along the upper edge of which are small upright pointed leaves, six on either side of the medallion. A pair of larger leaves is laid horizontally on either side of the medallion, filling the cavetto. At each corner is a group of three pointed leaves. The small leaves are not continued down the jambs, but there appears half-way down the cavetto a cross-shaped object, the upper and lower arms formed by two points, the side arms wedge-shaped. On the W. door of Block C the small leaves have disappeared from the inner cavetto and so have the two crosses, nor are the diamonds carried down the jambs. On the lintel of Block A (Fig. 186) there is the usual Greek cross in a medallion, the diamonds are omitted, the small upright leaves fill the upper cavetto, the seventh leaf is set slanting across the cavetto and joined by one coming up from the fillet below. A pair of leaves, pointing inward, branches out from this fillet on either side of the medallion, and the second cavetto is empty, except for a transverse leaf at the corners. (A cast of this lintel is to be seen at the South Kensington Museum.)

The S. wall of C and of the ante-chamber is niched on the outside by means of shallow pilasters. These do not start from the ground but from a small set-back in the wall which varies in

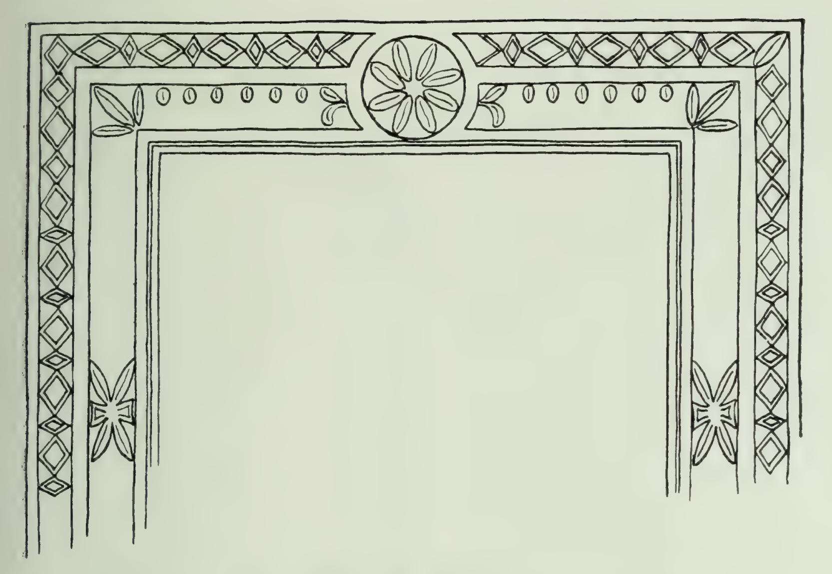


Fig. 185.—No. 44.



Fig. 186.—No. 44, lintel in block A.

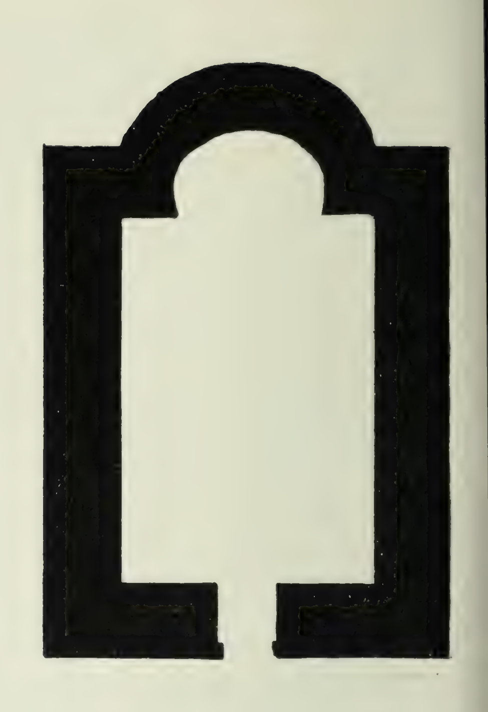




Fig. 187.—No. 46.

height from the ground according to the slope of the hill (*cf.* the W. wall of No. 43). The outer and inner walls of the chapel are all niched, the system on the outside being to leave a buttress at the corners of the arms, and to fill up the angles between the arms with two niches. The outside of the small oblong building N. of the apse is niched with stones set forward and set back (*cf.* the E. wall of No. 43).

No. 45

See No. 35.

No. 46

The ground on which Deghile stands is broken by small rocky hillocks. On almost every one of them we found a rock-cut tomb (three have already been mentioned on the rocks above No. 42), and in most cases there was a tiny memorial chapel placed near the tomb. I give two examples of these.

No. 46 lay on the S.-W. edge of the plateau and commanded a magnificent view over the Konia plain (Fig. 187). The tomb was hewn out of a boulder of rock; an inscription informed us that it was the grave of the Abbot Peter. The chapel was a little to the S.-E.; it was ruined down to the foundations, but on clearing it out I found the apse to be strongly horse-shoed.

No. 47

No. 47 lay on the hill S.-E. of Nos. 35 and 45 (Fig. 188). It was much ruder in execution than No. 46. The apse, irregularly placed at the southern end of the E. wall, was rock-hewn. The grave to the E. was cut in the same rock on the summit of the hillock. Not much remained of the masonry; it was of the roughest character.

No. 48

In the centre of the village, in line with the gateway which has been mentioned as lying at the foot of the stair leading up to No. 33, is a small rectangular building divided into two parallel chambers which communicated with one another by a door (Fig. 189). A double arched doorway in the

W. wall, the inner ends of the arches resting on a masonry pier, gave access to the building (Fig. 190). In the western room there was an arched niche in the S. wall (*cf.* No. 43). The only moulding was one that ran round the top of the pier, forming a capital, and was repeated below the spring of the arches on either side (Fig. 191). It was a poor example of the customary cavetto. The lintel and jambs of the door leading into the inner room were moulded on the W. side (concave moulding with oblique bars and a cross in a medallion, very shallow, scarcely more than incised). The masonry is bad, the coursing uneven, and the stones ill-fitted. In spite of the technical poverty of the architecture, I do not believe the building to have been a private house. The large double arched door is more important than anything I have seen applied to dwelling houses.

Mausoleums

The mausoleum in Maden Dagh (Fig. 192) was noticed by Smirnov; a photograph of it is published in Kleinasien. Strzygowski remarks: "Auf Grund solcher Denkmäler (*i.e.*, the mausoleum and a line of sarcophagi) wohl nimmt Smirnov an dass die christliche Stadt an der Stelle einer antiken Nekropole entstanden sei". It belongs to a class well known in North Syria, the tomb with a pyramidal roof (Fig. 193). De Vogüé[1] dates the pyramidal tombs at El Barah in the fifth century, but Butler puts all those described by De Vogüé a century later. Butler gives, however, examples of pyramidal tombs, which he assigns to the fourth and fifth centuries. Those which show the closest resemblance to the monument at Maden Sheher are two undated tombs at Rbe'ah and Taltita which he believes to belong to the fourth century, and a tomb at El Barah probably of the fifth century,[2] but the cornice of the tomb at Maden Sheher is of a type which is not, I believe, found in North Syria after the third century.

The tomb is entered by a small door in the N. wall; there is no moulding or decoration on the lintel or jambs. Within, a

[1] La Syrie Centrale, p. 106.

[2] Architecture and other Arts, pp. 111 and 159.

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Fig. 188.—No. 47.

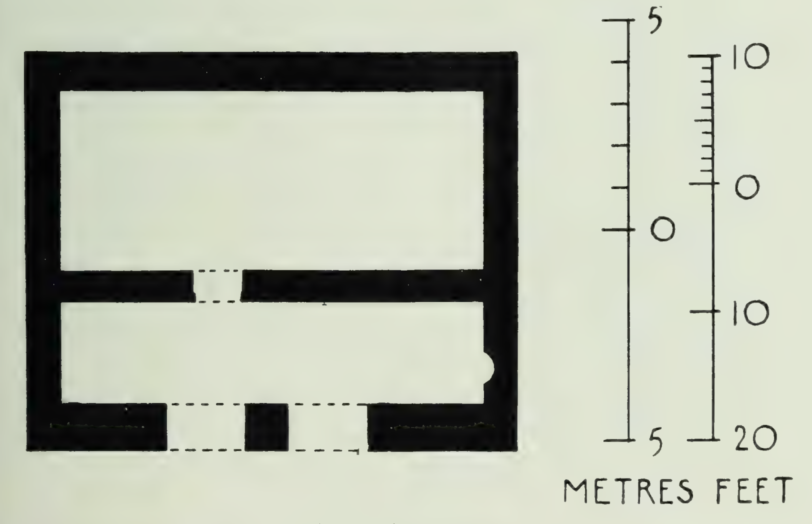


Fig. 189.—No. 48.



Fig. 190.—No. 48, from W.

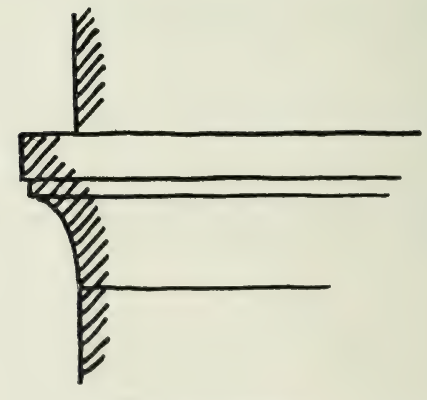


Fig. 191.—No. 48.

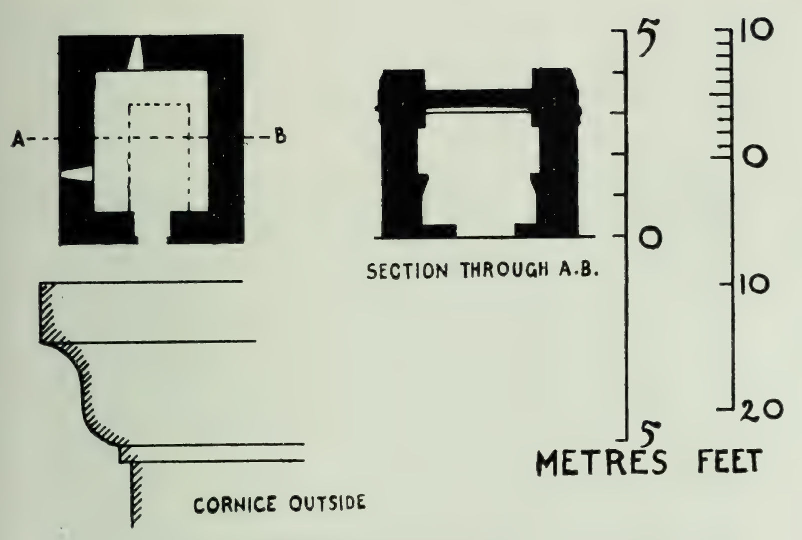


Fig. 192.—Mausoleum, Maden Sheher, ground plan, section and moulding.



Fig. 193.—Mausoleum in Maden Sheher from S.

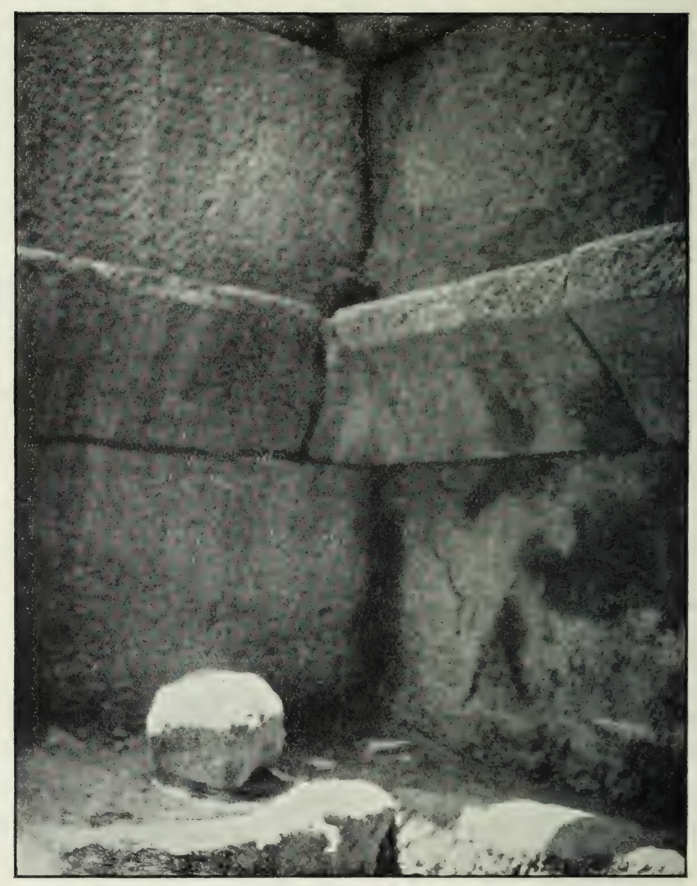


Fig. 194.—Mausoleum in Maden Sheher, interior.

low stone shelf runs round three sides of the building (narrower on the W. side), above it is a course of large stones, a splay-faced moulding and another course of large stones surmounted by a slightly projecting course which forms a running bracket to support the stone slabs of the roof (Fig. 192 section and Fig. 194 interior). This roof is absent in all the Syrian examples that I have seen, where, as De Vogüé says, "les faces inclinées de la pyramide servent de couverture".[1] Butler omits to describe the system of roofing in the two undated tombs above mentioned, but presumably he would have mentioned a ceiling if there had been one. The interior is lighted by two narrow wedge-shaped windows that from the outside look like slits. The exterior walls are built of three courses of stones, the central course being narrower than those above and below it and projecting slightly beyond them. Only one course of the pyramid remains in place, but many of the stones which composed it are strewn upon the ground. The slabs of the roof are carefully dressed to receive it, and there are holes for rivets in the slabs and in the stones of the pyramid. Even in the lower course one or two of the stones have fallen away, but their position is marked by the dressing of the slabs. The central part of the roof is left comparatively rough, so too is a space above the centre of the S. wall. The pyramid was therefore hollow, and was broken by an opening in the S. side. Possibly it may have contained a sarcophagus that rested on the slabs of the chamber below.

The masonry and the cornice moulding distinguish the mausoleum from all other buildings in Maden Sheher. The massive, finely pointed blocks are laid dry, the cyma recta of the cornice (Figs. 192 and 195) is a counterpart of the cornice found on pagan buildings in Syria in the second century. As Butler observes, it is the exact opposite to the cyma of the later period (of which we have so many examples in Maden Sheher). In the latter case "the greater curve is the concave one, the convex curve becoming in effect like a narrow torus moulding,"[2] while in the earlier cyma the swelling convex curve

[1] *Op. cit.*, p. 105. [2] *Op. cit.*, p. 38.

is the more important feature. We have therefore a type of mausoleum which does not appear in Syria before the third or fourth century, together with a cornice profile which could only be assigned there to the second or third century. The Syrian analogy cannot be taken as decisive in dating a monument in Central Anatolia, but the fact that the cyma of the cornice is not found on any of the churches in the Kara Dagh is conclusive. The mausoleum must be considerably earlier than they; I see no reason why it should not belong to the third century.

The prototype of this form of mausoleum is no doubt to be found in the monument at Amrith, published by Renan,[1] which Gaillarot dated "considerably before the time of Alexander". The mausoleum at Amrith is much larger than that of Maden Sheher, but the resemblance between the two is very remarkable. The massive masonry, the finely cut cymatium, the roof of stone slabs, are all to be seen at Amrith, and the analogy of the Phœnician monument makes it safe to assume that at Maden Sheher the shallow interior shelf supported stone slabs dividing the mausoleum into two storeys, though probably the whole interior area was not covered over.

The whole question of the pyramidal and ciborium tomb (the two types appear to be closely allied) remains to be studied. Heisenberg has recently put together some of the materials relating to it.[2] To the examples cited by him must be added some fine tombs found by Cumont in Northern Mesopotamia (as yet unpublished) and the ciborium tombs of Tripoli.[3] The tomb of Mausolus at Halicarnassus is another early example of the pyramid.

Rott found a pyramid tomb at Gereme not unlike the tomb in the Kara Dagh; the shallow pilaster, common in Cappadocia, appears upon its walls.[4]

Two mausoleums of a different character lie on the N. slope of the hill that bounds the village of Deghile to the S. (Fig. 196). One of them, No. 49, is standing (Fig. 197); in the other the

[1] Mission de la Phénicie, p. 80, plates 14 to 16.

[2] Grabeskirche und Apostelkirche, p. 197.

[3] Nouvelles Archives des Missions Scientifiques, vol. xii., part i.

[4] Kleinasiatische Denkmäler, p. 171.

Fig. 195.—Mausoleum in Maden Sheher, cornice.

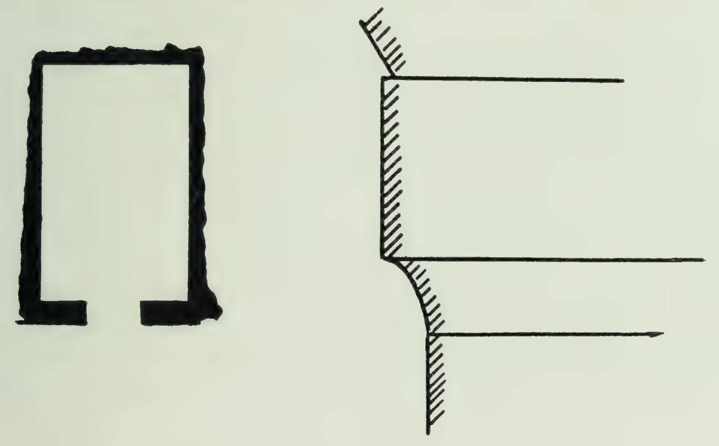


Fig. 196.—Mausoleum, Deghile. Ground plan and moulding.

Fig. 197.—Deghile, mausoleum.



Fig. 199.—Mahaleteh, from W.

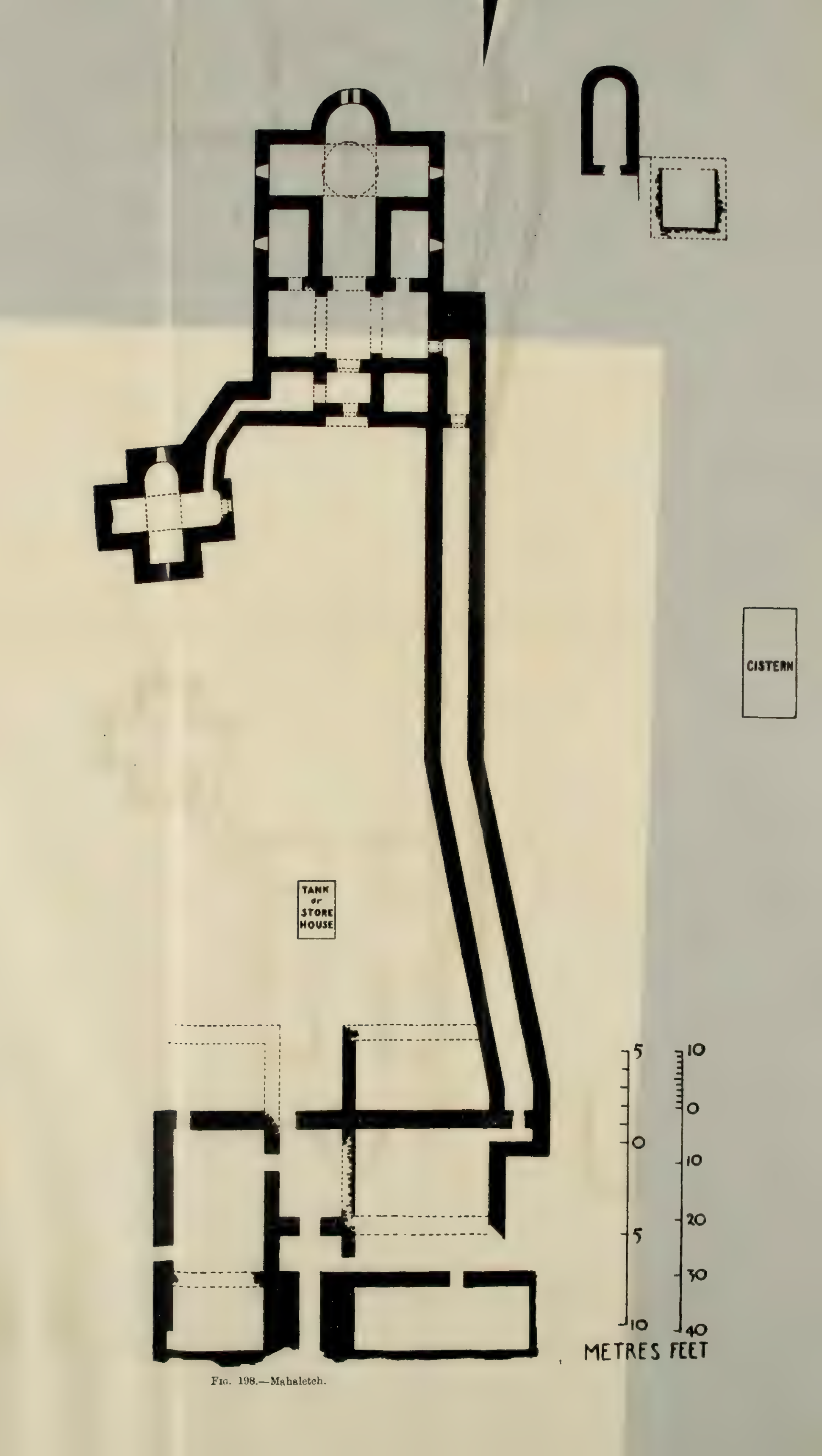


Fig. 198.—Mahaletch.





Fig. 200.—Mahaletch, large church from N.-W.



Fig. 201.—Mahaletch, interior of nave, looking W.

roofing slabs have fallen in. They are small oblong chambers built back into the hill, with a gable roof of stone slabs. The lower ends of these slabs rest upon a rude moulding; a heavy band surmounting a shallow ill-cut cavetto (Fig. 196). Five slabs on either side go to make up the roof. The masonry is of large stones, roughly faced and badly squared.

Mahaletch

This group of buildings stands on the highest point of the Kara Dagh, the ground falling away steeply on all sides. It consists of a cruciform church with a narthex and exo-narthex, a cruciform chapel, and a much ruined monastery (Fig. 198). The church is connected with the chapel and monastery by narrow stone passages. At a slightly lower level, to the S. of the church, there is an apsed chapel with a chamber adjoining it. A little farther S. in a very exiguous cave, I found the remains of two skeletons. On the N. side of the hill-top, immediately below the church, there are two Hittite inscriptions with some walls of the Christian period forming a chamber to the W. of them. The high ground occupied by the church, chapel and monastery is bounded to the S. by a sustaining wall on the top of which ran the passage from church to monastery. In the area W. of the church there is a vaulted cistern or store-house with a square opening which was partially filled by a stone pierced with a rectangular hole, like the stone described in No. 25. A rough stone trough lies near it. There is another vaulted cistern to the S. below the sustaining wall, and this too has stone troughs lying near it.

The outer aspect of the church strikes the beholder as curiously conical (Fig. 199). This effect is no doubt enhanced by the falling of the narthex and vaults, yet the system of roofing must always have given the effect of a series of steps leading up to the central mass of the square tower that concealed the dome. The W. wall has either been altered at a later date or the mind of the builder changed during the course of construction. The original intention was to have placed in the centre of the façade a triple-arched doorway, the arches resting on two double columns. The central arch and the two double

columns are there (Fig. 200), and on each column stands the springing stone of a pair of arches, but the outer arches do not exist, and the curve of the springers is awkwardly filled in by the masonry of the plain wall to N. and S. If the outer arches, according to the usual arrangement (*cf.* No. 6), had been as wide as the central arch, the three would have occupied the greater part of the façade, and the exo-narthex would have been little more than an open portico. When the plan was changed, or the wall altered, the central archway was turned into a porch and behind it were inserted the jambs and lintel of a door. This door does not stand in the middle of the porch; the N. jamb is set too far to the S., and in consequence the N. end of the lintel projects beyond the jamb, and the continuity of the mouldings is disturbed. The door opened into a small oblong chamber. If I am right in believing the exo-narthex to have been radically altered in the manner above indicated, the N. and S. walls of this chamber may be part of the later work. They divide the present exo-narthex into three chambers. The northern and central chambers communicate with each other by a door, but we found no means of access to the southern chamber. It was much ruined, but we cleared out what remained of it and found no door on any side. Now the two outer arches in the façade would have broken the W. wall of both these chambers. It is possible that the blocking up of the southern arch and other changes made at the same period in the exo-narthex may have sealed up the southern chamber, or there may still have been access to it by a ladder from the upper storey. A door in the E. wall of the central chamber of the exo-narthex led into a narthex of unusual depth divided into three compartments by transverse arches (Fig. 201). No doubt it was roofed continuously throughout by a barrel vault running from N. to S., whereas the exo-narthex in its present form was roofed by three barrel vaults lying E. and W. The outer compartments of the narthex opened into oblong chambers that lay to the W. of the transepts. The passage from the monastery led into the southern end of the narthex, the passage from the chapel into the northern chamber of the exo-narthex. At the E. side of the central compartment of the narthex is a wide archway

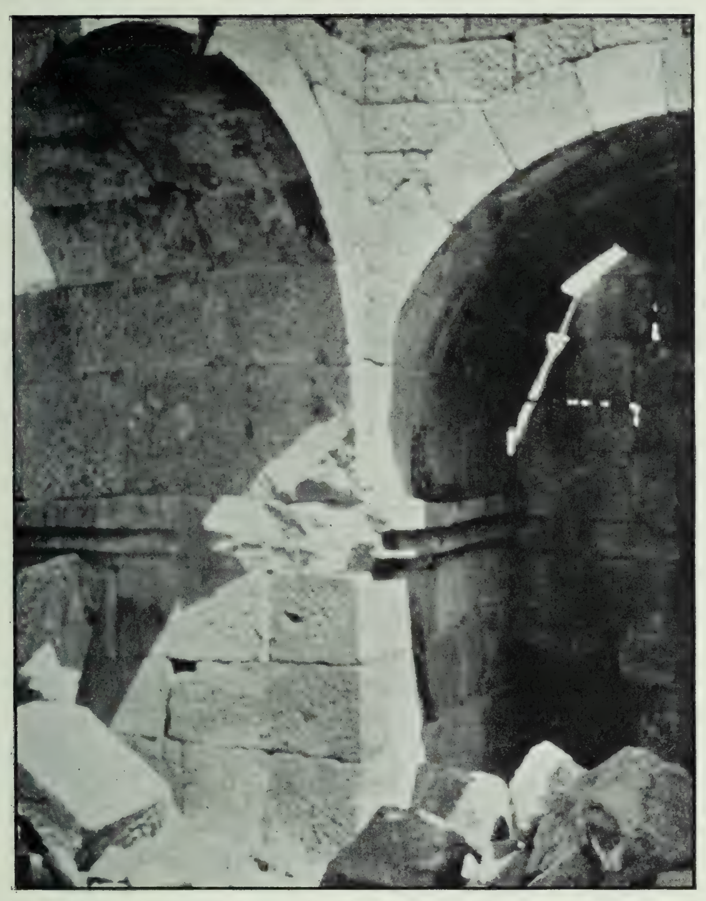


Fig. 202.—Mahaletch, interior angle of nave and N. transept.

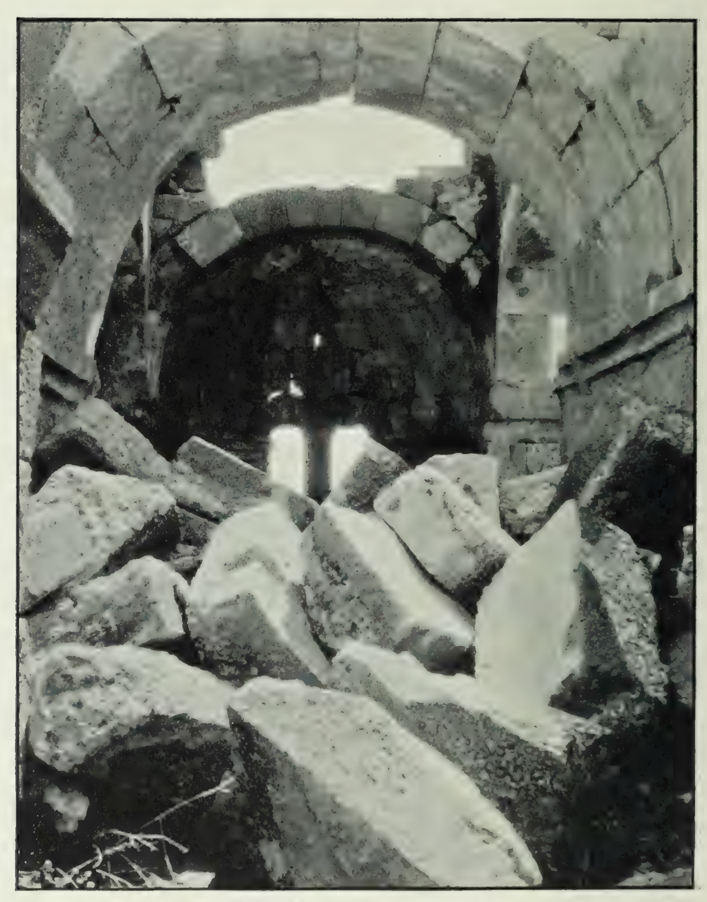


Fig. 203.—Mahaletch, interior of apse.



Fig. 204.—Mahaletch, N. transept.



Fig. 205.—Mahaletch, setting of dome.



Fig. 206.—Mahaletch, exterior of apse.



Fig. 207.—Mahaletch, door of chapel.



Fig. 208.—Mahaletch, chapel, from N.-E.



Fig. 209.—Mahaletch, N. transept of chapel.

leading into the nave. This arch is set higher up and stands higher than the N. and S. transverse arches (Fig. 201); all three are horse-shoed, and so are the barrel vaults of the cruciform and the four arches that support the superstructure of the dome (Fig. 202). The apse is stilted in ground plan and lighted by a pair of arched windows divided by a double column (Fig. 203). The N. and S. transepts are each lighted by a wedge-shaped square-headed window (Fig. 204) and the same windows reappear in the chambers to the W. The cardinal importance of the church lies in the fact that not only the system of barrel vaulting that obtained in churches of this type can be studied, but also the setting of the dome over the rectangular space below it (Fig. 205). Above the four arches, the walls are carried up to the height of six narrow courses; in the seventh course a long stone is laid transversely across each corner, changing the square into an octagon; in the next course the corners of the octagon are rounded off, and the masonry is carried back slightly behind the original lines of the sides of the square so as to produce a circle (*cf.* No. 9, but the moulding under the dome is absent at Mahaletch). The dome must have been slightly elliptical, a form adopted in order to diminish centering.[1]

The outer square tower of the dome is well seen from the N.-E. (Fig. 206).

The chapel to the N.-W. is a memorial chapel, in the shape of a Greek cross. It bears the funeral inscription of one Leo on the outer wall of the apse. This is of great importance in determining the character of the small cruciform chapels found in monasteries. It is not accurately oriented, and its axis is therefore not quite parallel with the axis of the church. The door is in the S. transept (Fig. 207). The apse is stilted inside, but rectangular outside (Fig. 208). It is lighted by a round-headed window, the arch cut out of a single stone. There is a narrow slit window in the W. arm. The barrel vaults are horse-shoed; the dome has fallen completely (Fig. 209).

The masonry of the church and chapel is massive. The

[1] Phené Spiers, Architecture East and West, p. 75.

coursing of the stones is not even, nor is it well preserved; sometimes one large stone is substituted for two courses; frequently a stone overlaps its own course and is jointed into the one above or below it. The vaults are built of dressed stones, the courses showing the same characteristics. In the church, the semi-dome of the apse and the barrel vault of the N. transept are well preserved. In both cases the outer walls were carried up so high as to conceal the curve of the semi-dome and vault, and finished with a projecting cornice, part of which can be seen on the apse. The stones of all the vaults have been carefully cut so as to fit into one another, but probably they were covered by some kind of roof which would not have been visible from below. The construction at the end of the N. transept is interesting (Fig. 210). The rough outer sides of the stones blocking the end of the vault would have been covered by the upper part of the wall which has now fallen (*cf.* tomb at Hass, Butler, Architecture, p. 26).[1] Throughout the church very little rubble is used, there being little space between the thick outer and inner stones of the wall. What space there is, is filled mostly by mortar. In the apse windows the double column and the arches are singularly massive. Some of the interior vaults are characterised by a narrow course of stones giving the effect of key-stones, though they are not quite in the middle of the vault (Figs. 201 and 209), and few of the large arches are truly keyed.

As in Nos. 1 and 31, the projecting course on the exterior of the apse below the windows is left plain. The cornice on the apse is noticeable on account of its bold projection (Fig. 211 *a*), but the cyma is flat, the lower curve being insignificant. A cyma moulding runs all round the interior cruciform of the church, interrupted only on the faces of the N. and S. walls of the transepts (Fig. 211 *b*). It is irregularly cut, and the band above

[1] Mr. Butler writes to me in answer to my question: "The tomb at Hass is not dated. From the profiles of the mouldings of the doorway I conjecture that it was built late in the fifth or early in the sixth century. That particular type of vaulting is common in tombs in Syria during the fourth, fifth, and sixth centuries. The earliest I recall is the tomb of Obediapsis at Frikya, and there are numerous late examples."

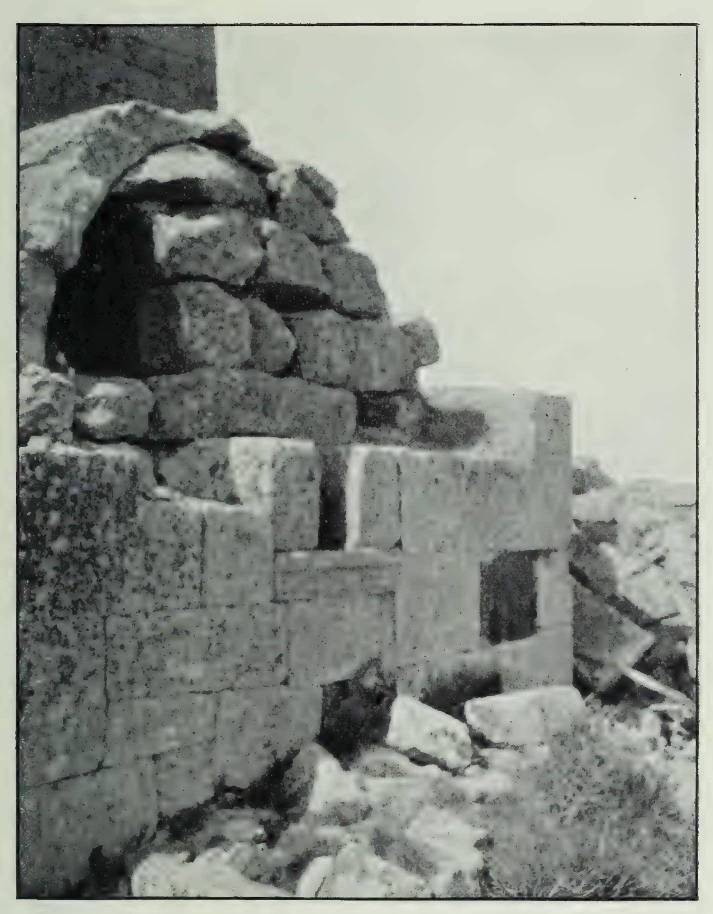


Fig. 210.—Mahaletch, N. transept of large church.

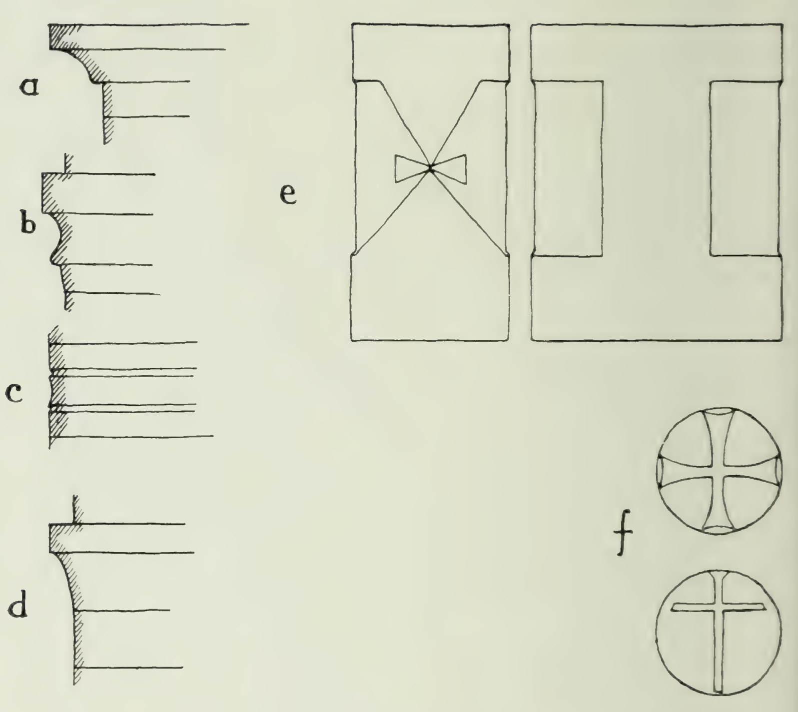


Fig. 211.—Mahaletch.

the cyma is curiously heavy. A stone, worked with almost the same moulding, forms a sill to the N. and S. windows in the outer walls. At the spring of the big arch between the narthex and the nave there is a different profile, a narrow notched band above a cavetto (Fig. 201). In the exo-narthex on the inner face of the N. and S. partition walls, *i.e.*, between the E. and W. doors, runs a flat moulding of the type so familiar on the exterior of the apses in Maden Sheher (Fig. 211 *c*). Its position here is an anomaly. I do not remember to have seen this particular profile used anywhere except as an exterior string-course, its shallowness rendering it unfit for half-lighted interiors. For reasons above stated I think the walls on which it is found here may not have been part of the original plan. There is but one moulding on the cruciform chapel, a simple cavetto which is used as a cornice, as well as below the apse window on the outer wall and on the inner corners below the spring of the vault arches (Fig. 211 *d*). A very shallow decoration, scarcely more than pairs of incised lines representing the concave motive, is found on the jambs and lintel of the door; in the church the jambs and lintel of the door under the arch of the porch bear three narrow bands. The lintel of the door behind it (leading from the exo-narthex to the narthex) has a shallow cross carved on it. The double columns on either side of the arch in the W. wall are decorated on their western end with the triangular shield-like motive observed in Nos. 5, 31 and 32 (Fig. 211 *e*). In this case the upper triangle drops from the square block left as capital to the centre of the half column, and is met by another triangle coming up from the base. At the point of juncture there are two small wedge-shaped cross-pieces. On the springing stones above the double columns are medallions containing crosses (Fig. 211 *f*), the one on the S. side being a Greek cross, while the one on the N. is a Latin cross.

The stone passages are clearly later additions. The masonry is of a much poorer quality, and in the better preserved of the two, that which leads from the church to the chapel, the stones of the passage walls are merely piled up against the walls of the church without any attempt to preserve the coursing (Fig. 200). This passage was roofed with thin slabs ; the other, which was

wider, is so much ruined that I could not determine the nature of its roof. The summit of Mahaletch is under snow for many months of the year; often enough the snow must have lain so deep as to block the doorways of church and monastery, and the monks, dragging out a miserable existence on the hill-top, contrived these passages through which they might creep to their prayers during the long winter. The climatic conditions may account also for the blocking of the exo-narthex portico. Possibly the monastery itself came into existence later than the church and chapel—its rough masonry and entire lack of decorations give no indication as to date, but the masonry is not dissimilar in character from that of the passages.

The question as to the exact relation of the exo-narthex to the church is difficult to answer. There is no other example of an exo-narthex in the Kara Dagh, and Sir W. Ramsay is inclined to regard the whole W. façade as a later addition. I append the notes he sent me after his last visit:—

"It seems most improbable that a church would be built on the peak without provision for maintaining the services of the building, *i.e.* without a monastery. The difference in style of building between church and residence is general; the houses are of the poorest character (see Miss Bell's remarks on No. 33); and, though the two great monasteries at Deghile are of better style, I cannot think that they can be taken as a norm of what is to be expected in every case, especially on a mountain peak. On Mahaletch everything was expended on the church, and the monastery was quite a secondary matter. Still more unimportant were the passages. The modern taste requires that at least the one connecting church and chapel should be uniform in style with the surrounding buildings: the Greek taste, and the Oriental taste also, are often very careless of the accessories. The sacred things must be good: the human things need not be so.

"On my last two visits I examined carefully the relation of the exo-narthex to the narthex. The latter is structurally detached from the narthex; I could put my hand between the finished wall of the narthex and the appended exo-narthex. While one can understand that interior walls, being light, might be placed loosely against the main walls even at the first, yet in the

case of an external adjunct like this, I think the presumption is that an exo-narthex, if included in the original scheme, would have been made an integral part of the building, and not a mere external adjunct tacked on to it with mortar.

"Moreover, I see no reason why the passage from monastery to church should pass by the exo-narthex, and enter the narthex (involving a breach in the sacred building), if the exo-narthex existed when this passage was made. I think it more probable that the passage was included in the original plan and the doorway in the narthex made for it at the beginning.

"The exo-narthex was built for two reasons, as I venture to think:—

"(*a*) For the better protection of the building. The two doors of the narthex being opposite and near, could not keep out the snow. A porch, which I imagine once projected as a protection of the narthex door, was insufficient, as it was open.

"(*b*) When the chapel was built (probably as a memorial of the founder of the monastery, and therefore no long time later), there was reluctance to break a door into the sacred building; an exo-narthex avoided this difficulty.

"To my mind the fundamental idea in the whole complex is the monastery: the church was required for the spiritual needs of the monks. Later, perhaps the church was the fundamental idea and the monastery an adjunct to keep up the duties of the church. Leo, a bishop of Barata about 400-525, may yet be proved a historical fact."

The chapel to the S. of the church is too much ruined to allow of any detailed observation. We cleared out the chamber W. of the Hittite inscriptions and found the masonry to belong to the Christian period. The rock on the N. side of the hill, E. of the chamber, forms an angle on the farther side of which the surface has been smoothed and a few Hittite characters inscribed on it. W. of the angle the rock has been cut away so as to form the S. wall of a short passage. The opposite wall of the passage is hewn out of a low ridge that crops out of the ground and on the upper part of this ridge is the second inscription. The northern ridge ends in a pair of rock-cut steps (an altar?). In Christian times the rock walls were supplemented by masonry

and the passage so formed was closed by a wall to the W. with a door in it (Fig. 212). The Christian building must have swept away all traces of older construction; of the Hittite shrine there remains only the rock-cut walls and the rock-cut steps. The latter had either been covered by the Christian wall or had broken the line of it. The Hittite passage had had the appearance of a large natural gateway; the Christian walls emphasised its character by prolonging the passage and setting a door at the end of it.

In Mahaletch we have an admirable example of Anatolian custom. The Christians must have re-sanctified a mountain, immemorially honoured, by crowning it with a mausoleum chapel and a church. So at Ivriz the sacred valley was consecrated by chapels, so on the Lake of Egerdir the pagan shrine on the north-eastern shore was taken over and is still used by the Christians. The custom of the country enforced itself on all new-comers, and when in their turn the Turkish invaders found a Christian chapel on the hill-tops, they too adopted the site as a place of pilgrimage and sanctified it with the grave of a holy man. Who can tell for how many thousand years the summit of Hassan Dagh, the Lesser Argaeus, has been sacred ground? I found on it a Moslem grave, and the ruins of a Christian chapel. There is a yearly day of pilgrimage to visit the grave. The older pilgrims have left no trace, or the crumbling of the high summit has swept it away, but that the mountain was revered by them also I have no doubt. For in Anatolia, custom is stronger than the strongest. Conquerors come and go, but the final victor is the land itself.

Asamadi

E. of Mahaletch, but at a considerably lower level, on a ridge looking out over the plain towards Taurus, is a group of ruins called by the peasants Asamadi (Fig. 213). I do not know what legend has given the place its name (*i.e.*, he was not hanged), probably it is the corrupted form of some older word. Below the ridge to the W. is one of the rare springs of the Kara Dagh (I know of only five), and the spot is used as a yaila by the inhabitants of the village of Dinek. The buildings consist of a



Fig. 212.—Mahaletch, Hittite shrine, looking W.

CISTERN

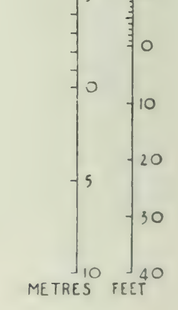


Fig. 213.—Asamadi.

church with a number of rooms attached to it, one small detached square chamber to the S. (*cf.* Maden Dagh) and a chapel to the W. The W. wall of the chapel is the only part that stands to any height (Fig. 214). The doorway is roughly decorated with a concave moulding, above it is an unusually high relieving arch, and above the arch a narrow window. The masonry is very poor. The apses in both church and chapel are shallow. The church, which is entirely ruined, has a narrow narthex. I saw a fragment of a column, so that there were probably a nave and aisles. The monastic buildings are choked with ruins and earth. One of the lintels was visible, standing in its original place (Fig. 215). The mouldings were deeply cut and resembled those on the W. door of the S. aisle of No. 21, except that the moulding at Asamadi is deeper and the Greek cross is absent. The N. wall of these chambers ran out to the E., forming a court of which the church occupied the S. side. Possibly the wall was continued across the E. side so as to complete the enclosure. A cistern lay in the centre of the court. Among the rocks to the N.-E. of the monastery was a large boulder hollowed out into a square shallow trough.

Maden Dagh

The summit of Maden Dagh is covered with buildings. Among the rocks at the E. side, above the upper quarry, is a church with a quantity of ruins to the S. of it, and a vaulted cistern a little to the W. (Fig. 216). About 40 metres W. of the church are two small parallel chambers lying E. and W. Some 60 metres farther, on the western edge of the hill, is a small apsed chapel with ruined chambers adjoining it to the S. and two detached chambers a little farther S. A vaulted cistern lies to the W. at a slightly lower level. We may conclude that a monastic foundation with a church and chapel occupied the site.

The church is a barn church with a nave and aisles divided by arcades of three arches (Fig. 217). The narthex has fallen so completely that its original plan is difficult to recover. As far as I could make out it was unusually deep and consisted of a southern chamber projecting beyond the S. wall of the church (there was a narrow window, omitted in the plan, in the

projection of the wall) and an entrance chamber which did not extend as far as the N. wall of the church. The W. wall of the church was plastered up to the point where the N. narthex wall joined it, but N. of that point there was no trace of plaster, *i.e.* the plaster extended only over that part of the wall which was covered by the narthex. I am inclined to think that the doorway in the W. wall of the narthex may have been the usual double-arched opening, for I found lying not far from the wall a moulded impost capital which looked very much as if it had belonged to a column that had stood in the narthex doorway (Fig. 218). It is possible that the irregular narthex was due to some reconstruction, perhaps at the time when a chamber was added to the S. side of the apse, but, as in the case of No. 16, which is also a monastic church with a narthex departing from the usual type, the exact arrangement is doubtful. The arches of the arcade are horse-shoed, the apse is horse-shoed in elevation but not in plan (Fig. 219)—in these respects again the church resembles No. 16. The apse is lighted by a pair of arched windows with a double column between them, the aisles by wedge-shaped E. windows. There is a door in the S. wall and two doors in the W. wall, one opening out of the nave, the other out of the S. aisle. The curious irregular chamber S. of the apse is a later addition (Fig. 220).

The masonry is very rough. On the exterior large stones are used for the lower courses and also in the apse (Fig. 221); even the arches are built of stone unequal in size, and are frequently without key-stones (Fig. 222). The nave and aisles were roofed with barrel vaults. In the nave the vault seems to have been constructed with dressed stones (Fig. 223), but the aisles were more roughly built of concrete and unsquared stones (Fig. 222). All the interior was plastered. There is a relieving arch over the door between narthex and nave, but none over the door from the narthex into the S. aisle; the S. door has fallen. The windows of the apse run up into the semi-dome, interrupting the splay-faced interior moulding that is carried round the apse at the level of the engaged capitals of the apse arch. The double columns are extremely rude, capitals and columns worked in the same block of stone as at Deghile. On the two columns nearest the apse are to be seen holes for bars;

FIG. 214.—Asamadi, W. front of small chapel.



FIG. 215.—Asamadi, lintel in monastery.

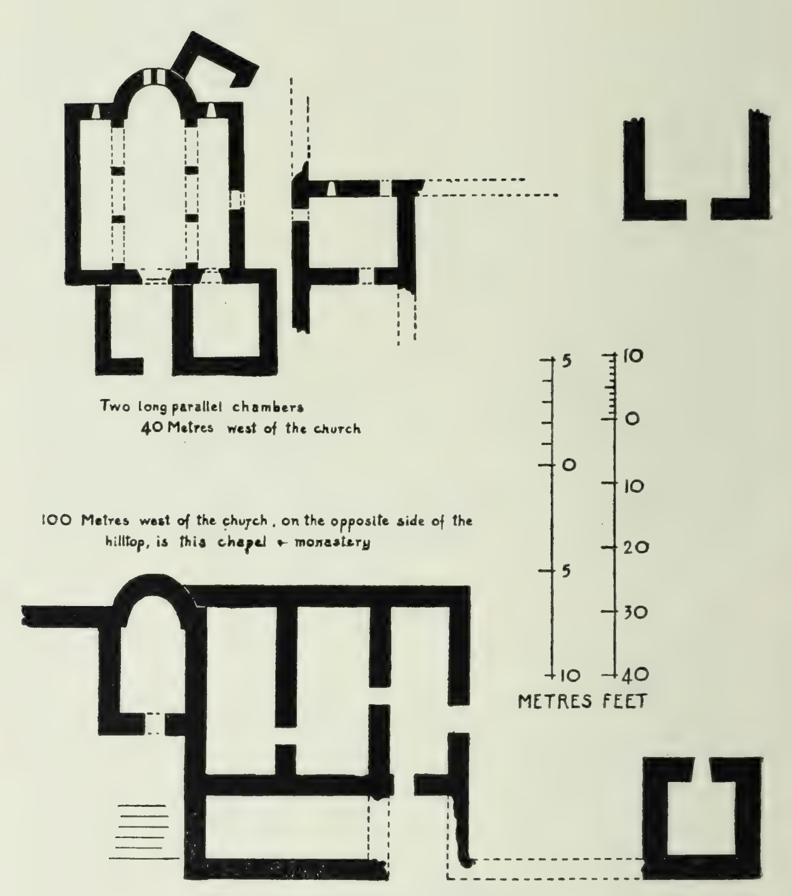


Fig. 216.—Maden Dagh.



FIG. 217.—Maden Dagh, from S.-W.



Fig. 218.—Maden Dagh, capital.



Fig. 219.—Maden Dagh, interior of apse.

Fig. 220.—Maden Dagh, S. aisle, looking E.



Fig. 221.—Maden Dagh, exterior of apse.



Fig. 222.—Maden Dagh, from S.

a wooden screen must have stretched across the nave. There are similar holes in the engaged pier S. of the apse and in the side of the opposite double column. The bay in front of the apse was therefore divided off from the nave and from the S. aisle. Among the ruins I found the stone altar scarcely removed from its original position before the apse (it can be seen in Fig. 219). It was an oblong stone with two small outsets on three sides forming the base. It measured 1 metre by 0·70 across the top and was 0·56 high (Fig. 224). On the upper surface was cut a cross with splayed ends, and there were four oblong holes, one at each corner, presumably to hold lights, for they were blackened by fire. On the interior side (the side round which the base mouldings were not carried) was a small projection, something resembling in shape a terra-cotta lamp. The hole in this projection was not blackened, and I do not know what purpose it can have served. Outside the apse under the windows ran a concave moulding (Fig. 225). It was carried across the E. wall of the aisles and ended abruptly with the end of the wall. The chamber S. of the apse interrupted this concave string-course. It is of exceedingly poor masonry; the stones are not wedge-shaped and are fitted together with mortar and rubble, both of which are visible even on the outside. It had been barrel vaulted (Fig. 222). The window at the E. end of the S. aisle opened into it. A shallow cavetto moulding formed a cornice round the apse.

Along the S. side of the church, between it and the monastery, there seems to have been a narrow, open passage into which the S. door of the church opened, as well as the door of the chamber S. of the apse. The least ruined of the monastery rooms also had a door leading into it, nearly opposite the S. door of the church. The masonry of all the monastery buildings was wretchedly bad.

The walls of the chapel on the W. side of the hill were built of large dressed stones irregularly coursed (Fig. 226). I saw no mouldings or decorations. The window must have been in the apse which was ruined. There was a very narrow slit-like window above the plain lintel of the W. door. The small square chamber to the S. was of the same kind of

masonry, but the intervening buildings were very poor work, similar to the rooms S. of the church.

Kizil Dagh

The pointed hill to the E. of Maden Sheher is crowned by a cruciform chapel (Fig. 227). The summit of the hill is so small that there is no room for other buildings, but on the shoulder a little below it to the S. there are some ruined chambers and a vaulted cistern. These ruins appear to me to indicate the existence of a small monastic establishment in connection with the chapel. Near the bottom of the hill on the E. side there are ruins of a house of the Christian period, and all round it are evidences of former cultivation, terraced fields, degenerated fruit trees, and old vine stocks, no longer tended.

The chapel is much ruined. The W. door is standing, the lintel and jambs decorated with a shallow groove. Bits of concave moulding are built into the interior walls at the four angles of the cross (Fig. 228). They lay no doubt beneath the spring of the arches that supported the dome. There was a door in the S. transept. A chamber has been added to the W. of this transept; it communicated with the nave and was lighted by a wedge-shaped window in the E. wall. Probably the chapel itself was lighted by windows in the apse. The interior had been frescoed. We turned up one of the fallen blocks and found remains of geometric pattern upon it, interlaced ovals.

Tchet Dagh

To the N. of Maden Sheher a low ridge separates the secluded site of the city from the great plains; it is at the eastern end of this ridge that Tchet Dagh lifts its rounded head. The top of the hill is scattered over with ruins. On the edge of the N.-E. slope lies a church with a complex of ruined chambers and a cistern under the S. wall (Fig. 229). About 150 metres W. of the church, on the summit of the hill, is a cruciform chapel; to the W. of the chapel there are again traces of building. On the analogy of other hill-tops I conclude that we have here the remains of a monastery with a church and a memorial chapel. The churches on Tchet Dagh and on Maden

Fig. 223.—Maden Dagh, nave, looking W.



Fig. 224.—Maden Dagh, altar.



Fig. 225.—Maden Dagh, moulding round apse.



Fig. 226.—Maden Dagh, chapel on W. side of hill.

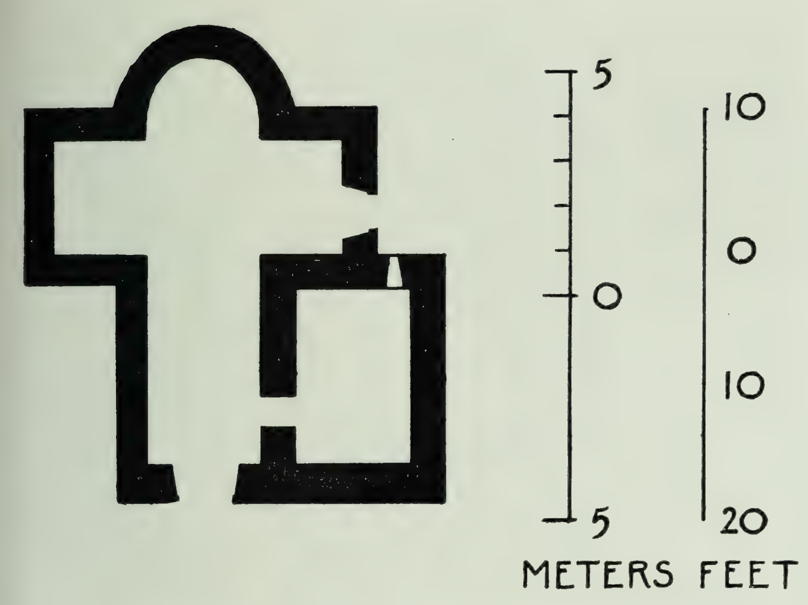


FIG. 227.—Kizil Dagh.



FIG. 228.—Kizil Dagh, interior of church showing angle of nave and N. transept.

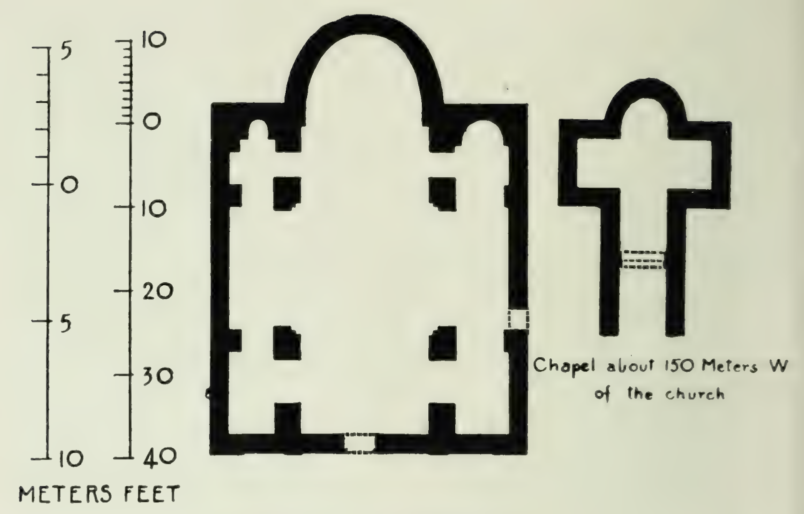


Fig. 229.—Tchet Dagh.



Fig. 230.—Tchet Dagh, west façade.

Dagh are the only two hill-top shrines with which I am acquainted that are not T-shaped cruciforms, but in the case of Tchet Dagh, the chapel at least recurs to the customary type.

The church has closer affinities with the buildings of Deghile than with those of Maden Sheher; in plan it is not unlike No. 35, which is also a monastic church. It exhibits the same internal arrangement of four masonry piers, which no doubt in both cases carried a dome; the outer face of the W. wall is adorned too with shallow niches (Fig. 230). Here, however, the resemblance in plan ceases, for the apse is not horse-shoed nor is it polygonal on the exterior, the S. wall is broken by a small door, the piers are niched on their inner corners (Fig. 231; *cf.* the niched piers in the tower No. 39) and there are small apses built in the thickness of the wall at the E. end of the aisles (*cf.* No. 17 and Kaya Sarintch). The S. door led into the monastery, like the S. door in the church on Maden Dagh.

The masonry is of small stones, except in the pilasters of the W. wall where some larger stones are to be found, and much rubble is used. The work is very similar to that of the monastic buildings of Deghile. I do not remember to have observed any mouldings; the W. door is without decoration.

A little more care has been expended on the chapel. A cyma moulding with a doubly notched band above it and a fillet below, runs round the interior (Fig. 232). The vaulting may have ended at the W. door, in which case the chamber to the W. of the door would have been in the nature of an open porch (*cf.* Nos. 22 and 37). Possibly the grave was situated in the porch as in No. 37.

Kaya Sarintch

A church and chapel with remains of monastic buildings lie upon the side of a hill called Kaya Sarintch between Maden Sheher and Deghile. The ruins can be seen from the path, on the right-hand side going up. The walls of the church are ruined below the level of the windows except at the E. end, where it is possible to make out a small window in the central apse (Fig. 233). The church has a nave and aisles but no narthex. Three oblong piers and two engaged piers on either

side of the nave carried the arcades. The aisles are apsed as well as the nave, but the aisle apses are merely niches in the thickness of the wall not apparent from the outside. One door at the W. end of the nave gave access to the church. Round the lintel and jambs runs a cavetto moulding with cross-bars at the corners of the cavetto and a medallion with a cross in the centre of the lintel (Fig. 234 *a*). The moulding is well and deeply cut. The capitals are rough blocks, splay-faced and unmoulded (Fig. 234 *b*).

The chapel lies to the E. of the church. It is a small building with a nave and aisles, but, as far as I could see, no narthex. The S. wall has fallen into the ravine below. The monastic buildings cover a considerable area to the N. and W. of the church. They are ruined and overgrown with brushwood.

Village Fort

The southern part of the modern village stands within an enclosure of walls and bastions (Fig. 235). The S.-W. angle of this enclosure is formed by church No. 3, which must have been standing at the time the walls were built, since it was incorporated in the line of defence. The fact that there is no mosque within the enclosure is a proof that the fortification was not constructed by Mohammedans, added to which the masonry, poor as it is, is yet superior to the only large piece of work that can with confidence be considered Turkish, *i.e.* the W. wall of No. 15. There is a large cistern inside the fort; it is now an open tank but the traces of former vaulting are visible.

The walls of the fortress are over two metres thick. On the exterior face the stones are laid with some care (Fig. 236, face of S.-E. bastion). Probably they were taken from older buildings; there are several fragments of mouldings built into the walls. In two places we found stones decorated with small incised crosses, but at least one of these, to judge from its position at the foot of the wall, was a re-used block. The bastions were sometimes rounded and sometimes rectangular. They had all contained a small chamber (on the E. side there is a larger bastion with three chambers). Square-headed doors led into these chambers; in one instance the inner side of the door-



Fig. 231.—Tchet Dagh, N.-E. pier.



Fig. 232.—Tchet Dagh, moulding on chapel.

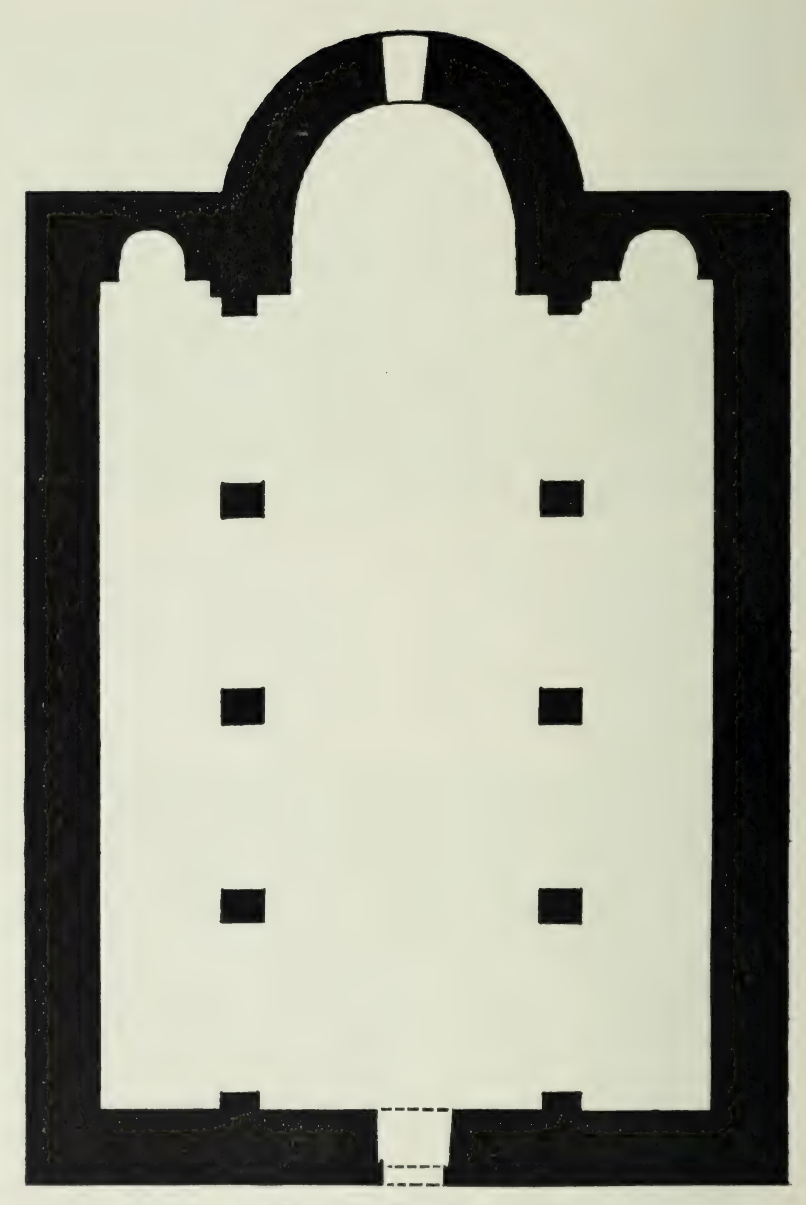


Fig. 233.—Kaya Sarintch.

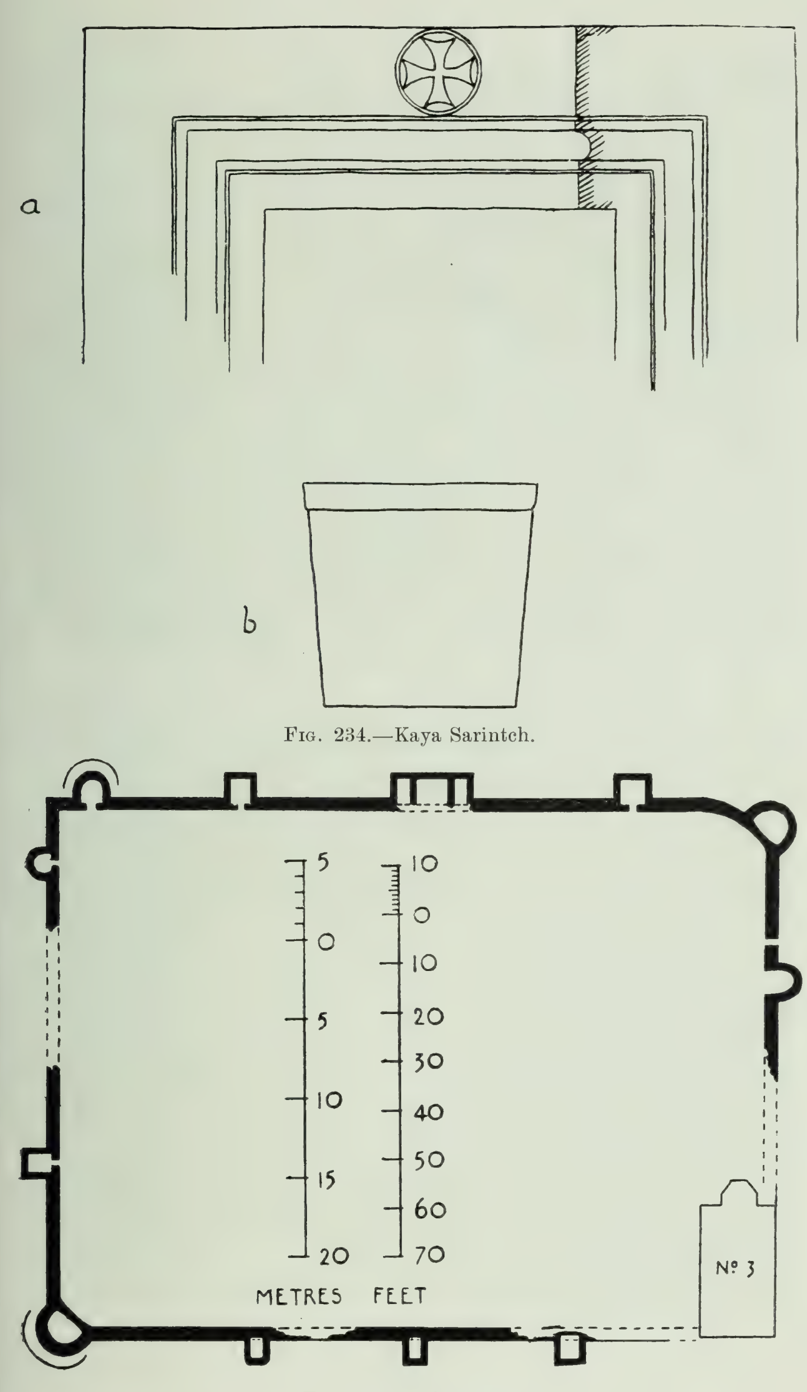


Fig. 234.—Kaya Sarintch.

Fig. 235.—Village fort.



Fig. 236.—Village fort, S.-E. bastion.



Fig. 237.—Village fort, interior of door in chamber of bastion.

way is a rough gable made of two blocks of stone (Fig. 237). The bastion at the N.-W. angle of the wall and that which stands at the northern end of the E. wall were strengthened by loosely piled stones lying round the foundations.

Fortresses

The Kara Dagh was defended by four fortresses, one on a rocky hill on the northern edge of the central crater above Maden Sheher, another on a high point to the W. of the same crater, a third on an outlying hill to the E. of the main block of mountain, S.-W. of the village of Dinek, the fourth round the lip of an isolated crater which forms the S.-W. angle of the Kara Dagh. These sites are called by the natives Djandar, Kizil Hissar, Kizil Dagh and Bash Dagh. The Turkish imagination is not fertile in names; no less than three of the peaks on the outskirts of the Kara Dagh are called Kizil Dagh, the Red Mountain. Of these three, one lies at some distance to the N. and is the site of a Hittite fortress, another stands immediately to the E. of Maden Sheher and is crowned by the small cruciform chapel which has already been described, the third is the fortified hill above Dinek.

Of Djandar nothing remains but sustaining walls and foundations of rooms; it is the smallest and least important of the three castles. Kizil Hissar stands on the outer edge of the mountains overlooking the great Konia plain. The hill on which it is built is extremely steep and the path leading up to it winds among rocks that have been cut away to make room for it. I saw a small niche-like shrine hollowed out in the rock by the edge of the path. A big sustaining wall supports the castle area on the N.-W. side; on the other three sides it is bounded by an outcrop of rock. These rocks are frequently cut away to admit of walls being built up against them, the larger blocks being incorporated into the line of defence. The buildings themselves are much ruined, and overgrown with grass and bushes. A large double cistern, which had once been vaulted, lay in the centre of the area; towards the E. there was a building in two storeys divided from one another by a vault (Fig.

238). The lower storey was roughly built, but the upper was of carefully dressed stones (*cf.* No. 45). The main gateway was to the N.-W., set back between well-built walls which formed a passage up to it, easy to defend. There were no mouldings or decorations on any of the lintels and no trace of a chapel. The masonry was of much the same character as that employed in the monasteries of Deghile. Below Kizil Hissar, near the western lip of the crater, there is a spring which never runs dry. It flows into some stone troughs lying under a wall roughly built of dressed stones, a wall, I think, of the late Christian period. The stones are not wedged, but laid together with mortar. Probably this spring supplemented the water supply from the cisterns of Kizil Hissar. On the western slopes of the Kara Dagh below Kizil Hissar, lie the extensive ruins known as Serai Beli.

The fortress on Kizil Dagh is completely ruined; a wilderness of stones on the highest point of the hill is all that remains of it, but in some places the line of the outer wall is visible, together with the foundations of small chambers.

By far the most important of the four castles stands on Bash Dagh (Fig. 239). It consists of three groups of buildings, two of them placed on twin peaks while the third lies on the col between. Mr. Wrench, of the Cornell expedition, to whose kindness I owe the plan of the whole site, is of opinion that the southern building is a monastery; I do not, however, share that view, as there are no remains of a chapel in any part of the mountain, whereas in monastic foundations the church and chapel are always the principal features. We searched for signs of occupation, building or rock cutting, which could with certainty be dated earlier than the Christian period, but found none. A tiny spring flows out of the hill-side at the bottom of the crater, and feeds a round masonry tank which must have been the main water supply of the castle (Fig. 240). On the N. side of this tank, where the water flows in, are remains of an oblong building that protected the source. The spring is now almost choked with weeds and ruins, and the water is very bad.

The principal building is that which stands on the N. hill.



Fig. 238.—Kizil Hissar, two-storeyed building.

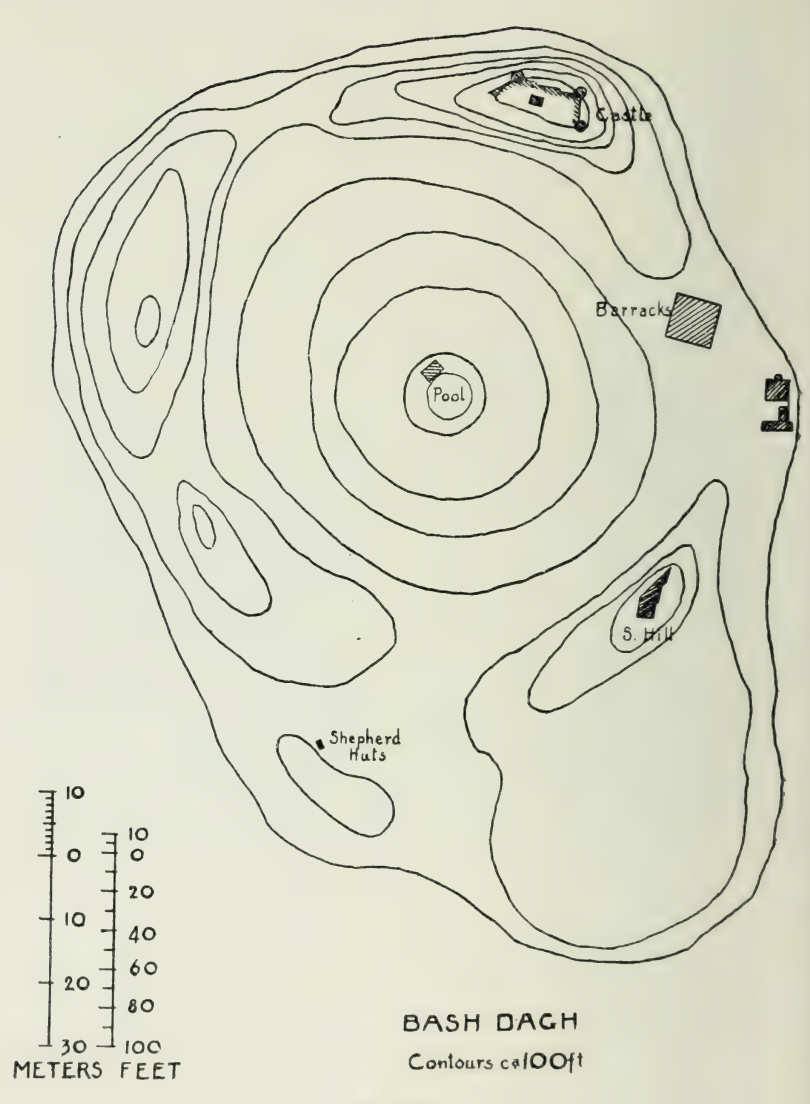

Castle
Barracks
Pool
S. Hill
Shepherd
Huts
10
0
10
20
30
METERS
10
0
20
40
60
80
100
FEET
BASH DAGH
Contours ca 100 ft

Fig. 239 a.

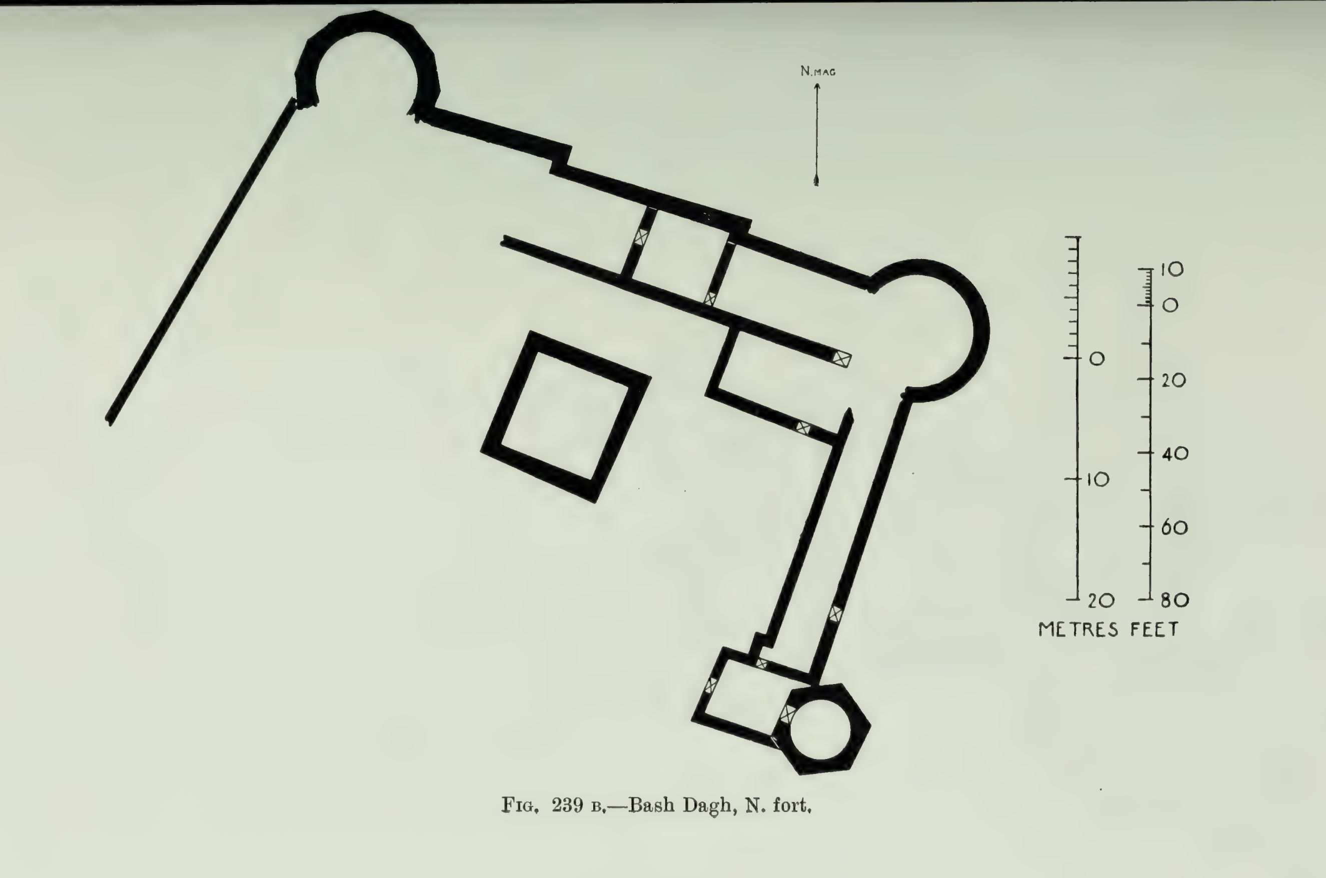


Fig. 239 b.—Bash Dagh, N. fort.

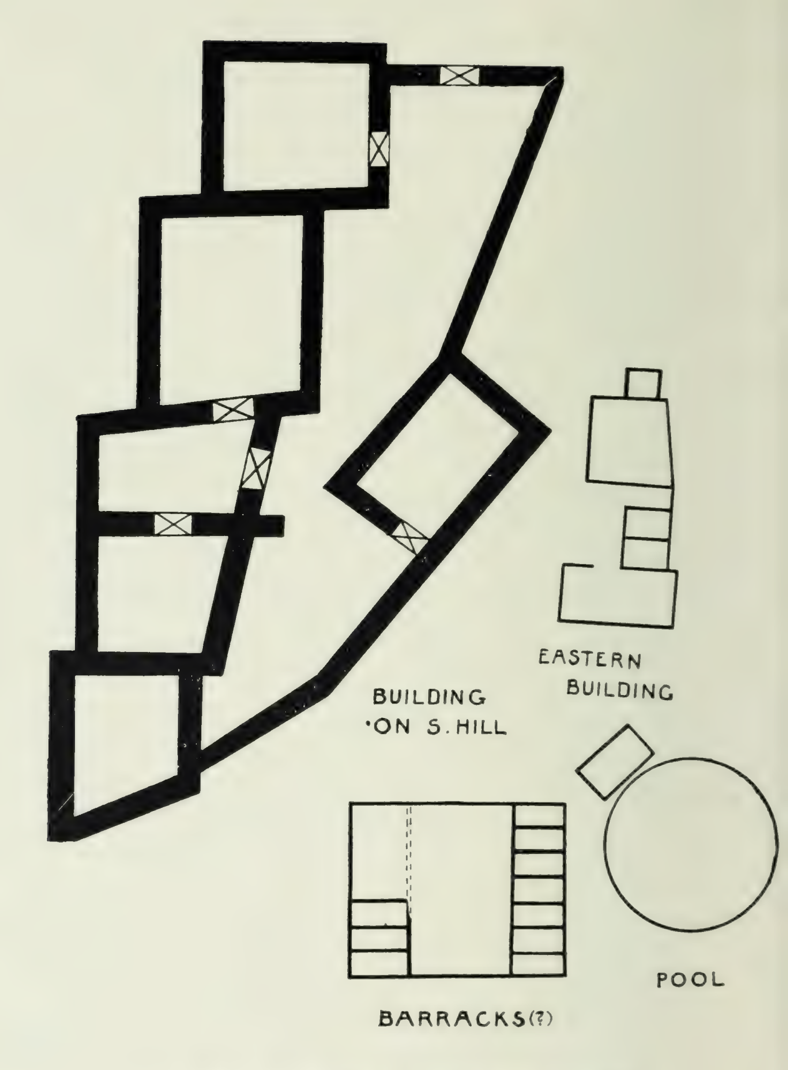


FIG. 239 c.—Bash Dagh, S. fort and other buildings.

It is an oblong enclosure with three bastions at the angles; the rocky edge of the crater was considered to be a sufficient defence on the fourth side and the wall is not carried along here, nor is there a bastion at the S.-W. angle. One of the bastions is rounded in the ground plan, two are polygonal, but of these last only the smaller retained its polygonal form up to its full height (Fig. 241). It is a hexagon which itself rests upon a round base. The interior of the other was round; the polygonal exterior was carried up for a few courses and crowned by a moulding which formed a base to a round superstructure (Fig. 242). The superstructure has fallen, but we could see its circular outline marked on the stones on which it had rested. The moulding consists of a bold torus (Fig. 244 *c*), and the same stands below the hexagon of the smallest bastion. There was a postern in the wall to the N. of the small bastion; we saw no other means of access. In the central court was a rectangular masonry tank, open, not vaulted. The chief characteristic of the building was the excellence of the masonry. There is no parallel to it in the Kara Dagh, nor have I seen any edifice in the Karadja Dagh or Hassan Dagh comparable with it. Very large blocks of stone were used, every alternate stone being set crosswise through the wall as a binding stone (Fig. 243). The courses are alternately wide and narrow. The admirable jointing and fitting is especially marked in the hexagonal bastion (Fig. 241). Among the ruins are two lintels which from their position we judged to have belonged to the door of the hexagonal bastion and the door opposite to it in the chamber to the N.-W. One of these was slightly different in type from any other in the Kara Dagh. It consisted of a row of dentils above a wave-moulded member (Fig. 244 *a*). On the other was a shallow concave moulding surmounted by the usual medallion (Fig. 244 *b*). I know of no other dentil moulding in the Kara Dagh, though Smirnov mentions that he saw one on No. 3.

The ruins on the col consisted of a large rectangular building and another that lay on the N. edge of the slope and guarded the approach to the fort. The first was composed of a central oblong court, with a door on the S. side, and two wings, each divided into seven parallel chambers (Fig. 245). Presum-

ably this building served as barracks for soldiers; a considerable force must have been lodged on Bash Dagh. The masonry, though not quite so careful as that of the fortress on the N. hill, is of very large stones (Fig. 246). The gate-house on the edge of the slope is quite ruined.

The S. hill is covered with a series of irregular chambers within an enclosing wall. The door is at the W. end. The masonry is markedly inferior to that of the N. fort. It is laid without mortar. In the interior walls the stones are very perfunctorily dressed (not, however, as a preparation for plaster, Fig. 247); on the exterior the work is rather better (Fig. 248). The doorway is without jambs and without any decoration on the lintel. There are no mouldings. I saw no sign of a tank. The garrison here and on the col must have depended on the round tank in the crater for their water supply.

We found no other traces of building round the crater except some ruined huts on the W. side, which were no more than a deserted yaila. All the villages in the plain send up their cattle to the Kara Dagh during the summer.

The S. hill drops very steeply down towards the W. The lower slope is broken by a formidable cliff of rock that stands above the steep gully which winds down to the village of Kolbasan. High up in the face of this cliff there is a cave which can be approached from the E. The path leading to it is partly rock-cut; at the narrowest point, where it passes across the face of the cliff, a wall is built to protect it on the outer edge, forming a short passage. It is connected with the cliff by transverse blocks which roof the passage (Fig. 249). Immediately beyond it is the opening of the cave. At the entrance the rock is cut away so as to make two rough stone seats. The rest of the cave is no better than a very narrow crack which winds downwards for about 45 metres. It is quite dark and blocked by débris; at one point my guide and I found it only just possible to creep through. The walls are of smooth volcanic stone. At the end, or at least at the place beyond which it was impossible to penetrate farther, there are three receptacles in the rock, partly cut and partly natural holes. The largest was about 5 metres square at the top and ran down into the rock the full



Fig. 240.—Bash Dagh, tank in crater.



Fig. 241.—Bash Dagh, N. fort, hexagonal bastion.



Fig. 242.—Bash Dagh, N. fort, polygonal bastion.



Fig. 243.—Bash Dagh, N. fort, curtain wall between polygonal and round bastions.

Fig. 244.—Bash Dagh.



Fig. 245.—Bash Dagh, barracks and S. fort, from N. fort.



Fig. 246.—Bash Dagh, angle of barracks.



Fig. 247.—Bash Dagh, S. fort, interior, looking S.-E.



Fig. 248.—Bash Dagh, S. fort, S.-E. door.

Fig. 249.—Meliz, passage leading to cave.

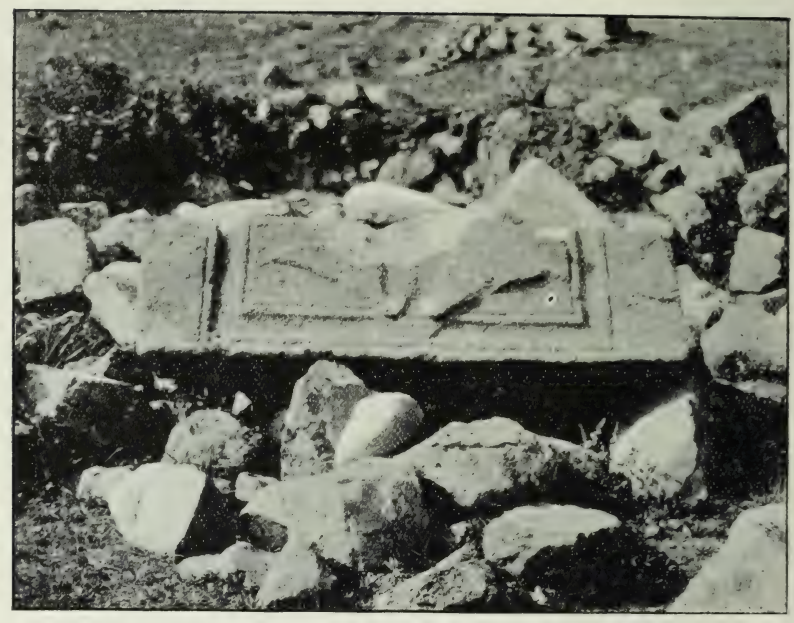


Fig. 250.—Naghran Euren, lintel.



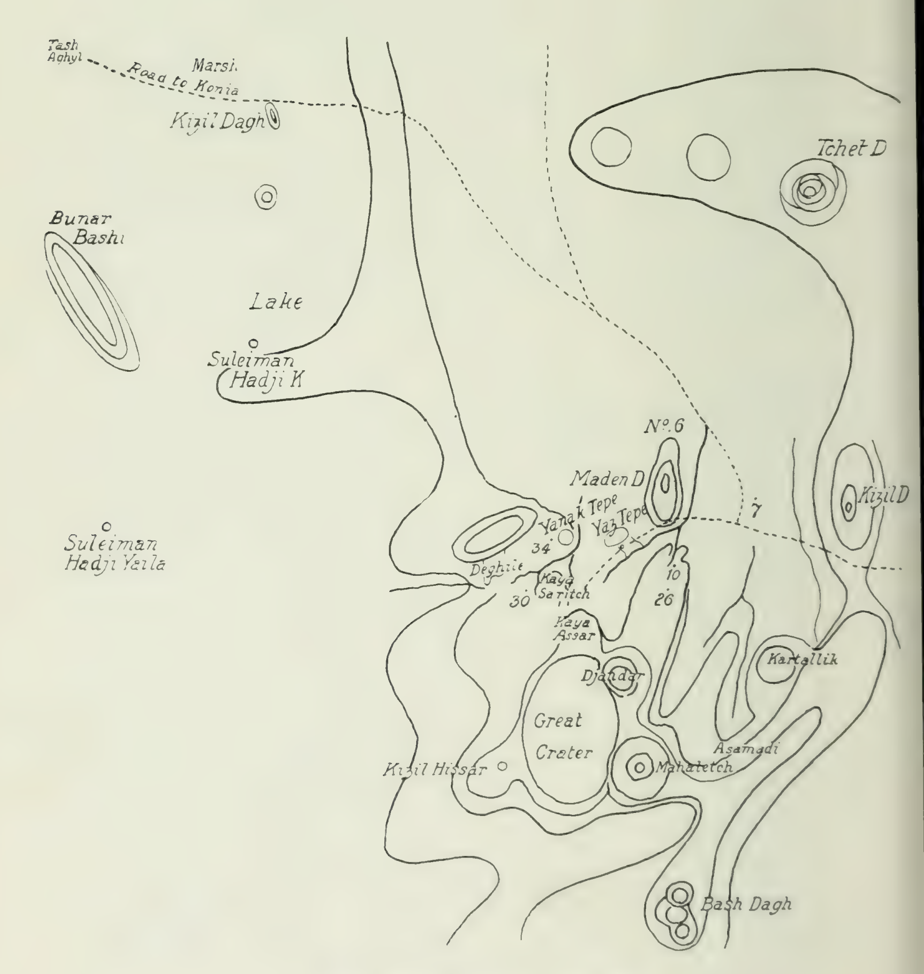
Fig. 251.—Konia, window arches.

height of a man. In all three the irregularities of the rock were carefully filled in with square tiles, and the whole interior surface had been covered with a thick smooth coat of plaster. Quantities of broken tiles were lying about. They varied considerably in size, but all were about 4 centimetres thick. Most of them were adorned with patterns, either wavy lines running in and out of the corners, or the corners were filled in with a pattern of branching lines. In the latter case the tiles were triangular or diamond-shaped. There is a legend among the natives that this was the treasury of the castle, and that at the time of the conquest the Arabs (*sic*) carried off three loads of gold coins from here. When this conquest took place is not specified, but the legend seems to connect it with the Arabs, not with the Seljuks. It would be pleasant to believe that local tradition retains dimly the memory of the Arab invasion that overwhelmed and ruined Maden Sheher.

Lower down the valley there are two round holes high up in the cliff. The rock round one of them has broken away completely but there are still traces of hewn steps leading up to the other. Still lower down there is another cave similar to the first but at the bottom of the cliff. Here too the entrance is guarded by walls and a door, and I believe the masonry to be partly of the Christian period. The cave is almost entirely blocked by débris. The site of the caves is called Meliz.

Not more than half a mile N. of Meliz, on a grassy shoulder below Bash Dagh, are the ruins of a village called by the natives Naghran Euren. No building is standing here except the remains of a house with a door roughly moulded round the jambs and lintels. There is a round boss on the centre of the lintel above the moulding. Among the ruins I found an interesting lintel decorated with a pair of birds below a concave moulding (Fig. 250). There are traces of some object between the birds, but the bottom part has broken away. It is probably the vase that usually accompanies the bird motive. The decorative scheme cannot be better illustrated than by a block of worked stone, not hitherto published, which we saw in the house of Fraülein Gerber in Konia (Fig. 251). The stone was brought from the neighbouring ruins of the Seljuk palace. The lower

part is filled by the two arches of a pair of windows. Above these are two birds pecking at leaves that spring from a central vase. It is an adaptation of the familiar theme of the fountain of life with animals feeding at its source. Above the birds is a label filled with geometric patterns and acanthus leaves.



Rough map of Northern Kara Dagh.

PART III

ECCLESIASTICAL ARCHITECTURE



Plan of Deghile.

PART III

ECCLESIASTICAL ARCHITECTURE

One of the most remarkable experiences of travel is that which assails him who passes from the seaboard of Asia Minor and gains the central plateau. He leaves behind him a smiling country full of the sound of waters, with fertile valleys, hills clad in secular forests, coasts that the Greek made his own, setting them with cities, crowning them with temples, charging the very atmosphere with the restless activity of his temper : the defile opens through high Taurus, the Tchardak Pass, that famous path of armies, broadens and flattens towards Dineir, the fruit gardens dwindle and disappear as the line climbs up to Eskisheher—the traveller looks round and sees that every feature of the landscape has suffered change. Before him stretch wide plains, corn-growing where rainfall and springs permit, often enough barren save for a dry scrub of aromatic herbs, or flecked with shining miles of saline deposit; naked ranges of mountains stand sentinel over this featureless expanse; the sparse villages, unsheltered from wind or sun, lie along the skirts of the hills, catching thirstily at the snow-fed streams that are barely enough for the patch of cultivated ground below; the weary road, deep in dust or mud according to the season, drags its intolerable length to the horizon. It is Asia, with all its vastness, with all its brutal disregard for life and comfort and the amenities of existence; it is the ancient East, returned, after so many millenniums of human endeavour, to its natural desolation.

If this is the first it is also the final impression. The further the traveller goes, the more thoroughly he studies the vestiges of many civilisations, old and new and all alike decayed, the more deeply will he be convinced of the Asiatic character of the land. Race, culture, art, religion, pick them up at any point

you please down the long course of history, and you shall find them to be essentially Asiatic. The West may have conquered here, organised governments and built towns as the successors of Alexander built and organised, laid roads and quartered legions, and distributed the rights of citizenship in the political capital of the world as did the Romans, it was the East that conquered the conqueror. The old civilisations coloured and changed the new; the primeval faiths, calling themselves by other names, continued to rule the minds of men; the arts, turned to fresh uses, still drew their inspiration from an Oriental source. The East pursued its deep and silent way, assimilating what was brought to it and passing it out again marked with its own stamp.

It is from this aspect that I have found myself forced to regard the Christian antiquities of the Anatolian plateau if I would arrive at any satisfactory understanding of them. The explanation of these ruins, so far as it is as yet possible to offer an explanation, is to be sought in the architectural traditions of Asia. Types and technic must be traced back directly to earlier generations of Oriental builders, or indirectly to the same fountain-head through Hellenistic art which was itself, as were its creators, so strongly Orientalised. Probably it would be true to say that along the coasts of Asia Minor the Hellenistic influence was predominant, while upon the plateau the unadulterated East, Mesopotamia, Persia, Armenia, held the greater sway. The materials available for the forming of such a judgment are however too scanty. Pergamon, Ephesos, the towns of the Lower Mæander, will shortly have yielded all the evidence they still preserve with regard to the arts of the Diadochi and of the Roman Imperial period—two phases so closely allied that the modifications in the later work seem to have been largely due to the influence of Hellenistic Syria.[1] But of Syria

[1] At Miletus, which I visited in the spring of 1907, the German excavators have found an example of the Syrian pediment in the architecture of the third century A.D. (Sechster Vorläuf. Bericht, p. 29). Sir William Ramsay has observed that during the third and later centuries Hellenism died out in the eastern provinces of the empire, and the Oriental spirit revived (Studies in the Eastern Roman Provinces, p. 357. See, too, his appreciation of the movement in the same work, pp. 283-87).

itself we know practically nothing, except what stands above ground. The Seleucid cities on the Orontes are untouched; in Palmyra, Petra and the districts beyond Jordan no excavation has ever been attempted. Farther east our ignorance is yet more complete. The arts and history of Babylonia and Assyria are indeed being brought to light, and most valuable is the evidence that they afford, but who can speak with any certainty as to what Seleucia, Edessa, Nisibis or Amida may reveal? Armenia is equally unknown; the Hittite civilisation has but recently stepped for us into reality. Except for the German excavations at Boghaz Keui, and some Russian diggings at Ani, I believe that Sir William Ramsay and I were the first to put spade into the ground in the interior of Asia Minor. The work is therefore all for the future, and those who are now engaged upon it must be content to draw what inferences they may from an array of facts incredibly scanty, and willing to remodel their theories in accordance with fresh discoveries.

In dealing with the architecture of the plateau it is necessary to establish at the outset two general propositions of a far-reaching character. The first is the great variety of architectural types. In the small mountain district of the Kara Dagh, remote from any of the great centres of civilisation—a district where the local origin of the work cannot, in our opinion, be disputed—the number of ground plans used is surprisingly large. The basilica, the barn church, the T-shaped cruciform, the cross-in-square, the trifoliate apsed chapel, the octagon, the polygon, the chapel with inner buttresses but without aisles—with all these forms the builders were familiar. If I were to go further afield I could cite yet more developments of the single-chambered church, a whole series of transition forms tending towards the Comnenian five-domed cruciform, churches with a dome, transepts and nave but with only one aisle, a church without the dome or transepts but with the characteristic single aisle, and cruciforms of every possible kind. There is no end to the imagination of the architects, and whether their workmanship be rough or fine they exhibit the same resource and boldness in grappling with structural problems. This fecundity is the more remarkable when it is remembered that from the end

of the eleventh century onwards one type of ecclesiastical architecture became almost universally predominant in the Eastern church, and has remained so until this day. This type is the five-domed cruciform employed by the Comneni, *i.e.*, the church in which the interior Greek cross is emphasised on the outside by the raised cross-shape of the barrel vaults radiating from the central dome, and the thrust of the dome distributed over the outer wall by chambers placed in the spaces between the arms of the cross, each chamber covered by a dome.[1] With its general acceptance, the varied and beautiful forms of basilica, domed basilica, domed T-shaped cruciform, octagon and polygon, that had existed side by side since the time of Constantine, disappeared for ever.[2] The date at which the creative faculty

[1] Strzygowski is of opinion that the first perfect example of this type was a church known as the Nea built by Basil the Macedonian (867-86) in his palace at Constantinople. He considers that it may possibly have been derived from Armenia ; its name implies that it was an innovation in the capital (Der Dom zu Aachen, p. 40. See, too, his article on Skripu in the Byz. Zeit. for 1894, and on Eregli in the Jahrb. des oester. archäol. Instituts for 1898). Millet (L'Asie Mineure, Revue Archéol. for 1905, vol. v., p. 106) inclines to a Byzantine origin. He observes that our information with regard to the Nea is so insufficient that it is impossible to be sure that it was not a five-domed cruciform of the type of the SS. Apostles, *i.e.*, a cross-shaped church with a dome over each of the four arms, and a fifth dome over the central intersection. He is not acquainted with any Armenian or Georgian church of the Comnenian type, but he sees it exemplified at Constantinople in the Gül Djami in the middle of the ninth century. The date given to the prototype in Constantinople is therefore in either case the same, but I may observe that the Gül Djami does not represent the perfect Comnenian type. It retains a characteristic of the domed basilica in the small piers set in pairs between the four great piers that support the dome, and with them a reminiscence of basilical form. Compare with this ground plan (Wulff: Die Koimesiskirche in Nicäa, p. 124) a plan such as that of the small church in the Monastery of St. Luke, where however the corner domes are replaced by intersecting barrel vaults (Schultz and Barnsley: The Monastery of St. Luke of Stiris in Phocis).

[2] I do not, of course, wish to assert that no variations whatever are to be found. On Mount Athos, for example, a ground plan adopted in the latter half of the tenth century has been used with small modifications until our own day (Brockhaus: Athos-Klöstern, p. 20). Still more curious are churches of the thirteenth century in Trebizond which, as Strzygowski points out, are still markedly basilical in form, and possess distinctively Anatolian traits (Millet: Bulletin de Corr. Hell. for 1895. Kleinasien, p. 153).

of Oriental architects came to an end corresponds with the conquest of Asia Minor by the Seljuks; it seems therefore not unreasonable to suppose that it was not until that great birth-place of architectural motives, Asia Minor, was severed from the Eastern Empire, that invention ceased. The Seljuk conquest was indeed the death-blow to the Byzantine power. Though a small part of the Asiatic dominions was recovered and held with varying fortunes until the appearance of the Ottoman Turks, from 1072 onwards the writing on the wall was unmistakable. Constantinople had retained its vitality because it had retained its connection with the living East—how great was the vitality of the Byzantine Empire cannot be illustrated better than by the astounding revival under the Macedonian dynasty,—but when the connection with Asia was cut, the resources of the empire were annihilated and its end became inevitable. The architectural sterility is but one of the many signs of approaching extinction.

The second general proposition is one that can only be established on the spot by careful examination of the ruins themselves. Such examination shows that marked differences exist in the architecture of districts which are geographically very closely related. The Karadja Dagh is but 60 kilometres from the Kara Dagh, yet the great central monastery of the former mountain, Kurshundju, though it retains the T-shaped church universal in the hill-top monasteries of the Kara Dagh, differs widely from the latter, both in masonry and in ornament. There is no parallel in the Kara Dagh to the lintels worked with vine scrolls of Dagh Euren in the Karadja Dagh. In the Hassan Dagh district the differences are yet more clearly apparent. The character of the masonry is similar to that of Kurshundju, but there are whole groups of ground plans which are peculiar to Hassan Dagh. The basilica and barn church, which are the prevailing types in the Kara Dagh, almost disappear in Hassan Dagh; I saw but one example which could be pronounced with certainty a basilica.[1] They are replaced by

[1] At Üleuren, a village on the southern slopes, marked by Kiepert. It closely resembled No. 1 in Maden Sheher, but was so much ruined that it would have been difficult to plan. It had a long nave divided from the

churches without aisles and by many varieties of the cruciform, one of which is as yet entirely unknown elsewhere. Small differences in style are innumerable; the following are a few of them: the shallow mouldings of the Kara Dagh are, so far as my knowledge goes, found only there and in the Kilisra district farther west; the oblong pier of the Kara Dagh does not exist in the Karadja Dagh or in Hassan Dagh, but, on the other hand, in the ruined basilicas of the Karadja Dagh there are fragments of round columns.[1] Certain decorative forms of the double column (see Nos. 5, 31, 32, and Mahaletch) appear only in the Kara Dagh; the modillion mouldings universal in the Karadja Dagh and in Hassan Dagh are not used in the Kara Dagh; the polygonal apse, of which there are a few examples in the Kara Dagh, is the only form of apse known to the builders of Hassan Dagh. In short, the peculiarities of each district are so salient that I should be much surprised if every separate small artistic centre on the Anatolian plateau were not found to have a separate school of its own. And this conjecture indicates the nature of the inference that must necessarily follow. The art of Central Asia Minor was not imported; an imported art would have been more homogeneous. The builders were working within the limits of a native art indigenous to the soil, but within those limits they worked with extreme freedom—with the freedom of creators thoroughly conversant with the laws that custom and tradition had imposed upon them. Now these laws are easily recognisable. In general terms they may be summarised thus:—

1. The building material that is to be used is stone. I know

aisles by eight or nine double columns on either side, an apse rounded within and polygonal without, masonry of the fine Hassan Dagh quality. There must have been a narthex, but it was completely buried. Üleuren was one of the first places I visited in Hassan Dagh; if I had known that this was the only basilica I was to find in that district, I should certainly have given it more attention, but at the time it was impossible to guess that it was not one of many. Sir W. Ramsay saw two oblong piers in a church on Arissima Dagh. He believes it to have been a basilica.

[1] Rott has recently published a basilica at Gereme in Cappadocia. In this church the columns of the nave arcades appear to have been round (Kleinasiatische Denkmäler, p. 167).

of but two examples of brick churches in Central Anatolia (neither of them from my own observation), Üch Ayak,[1] a little N. of the Halys, and St. Clement at Ancyra, the modern Angora.[2]

2. Brick may be used in decoration, but only in conjunction with the breaking of flat wall surfaces by niches.[3]

3. With very rare exceptions the vault and dome is the sole method employed in roofing.[4]

4. The basilica and barn church are invariably provided with a narthex divided into chambers, but the atrium is almost unknown, indeed there is no example in which it can be stated with certainty to exist.

5. The masonry, though it varies in details, is all of the same general character, an outer and inner surface of dressed stone with rubble and mortar between.[5]

To some of these points I shall return later.

1. The Basilica

The long-drawn controversy with regard to the origin of the basilica cannot be considered to have reached an end, though

[1] Ainsworth: Travels and Researches in Asia Minor, i., p. 162. Strzygowski (with Crowfoot's notes and photographs): Kleinasien, p. 32. Von Schweinitz: In Kleinasien, pl. 8.

[2] Wulff: *op. cit.*, p. 52.

[3] Besides Nos. 35 and 45, 43 and 44, there are examples in the Hassan Dagh district: Ilanli Klisse, near Pelistrama, and Tchangli Klisse, near Akserai. Of the latter, Strzygowski published Smirnov's photograph in Kleinasien, p. 157.

[4] Rott has published a church at Skupi, east of Kaisarieh, where the nave was, in his opinion, originally covered with a gable roof, while the transepts were vaulted. At Andaval he believes the original roof to have been of wood (Kleinasiatische Denkmäler, pp. 105, 193). We have found occasional instances of narthex chambers roofed with beams, No. 6 for example.

[5] Hamilton states that he found a church built of dry masonry on the slopes of Mt. Argaeus near Gereme. From his description it must be a domed cruciform (Asia Minor, ii., p. 281). *Cf.* Texier's church at Dara, also built without mortar (Architecture Byz., p. 54). Hamilton's churches have been visited by Rott. The masonry is not wholly without mortar (Kleinasiatische Denkmäler, p. 163).

the lines along which an explanation may be attained are, I believe, already foreshadowed.[1] Many of the solutions which have hitherto been suggested, however varied may have been their character, have shared a certain air of improbability which may account for the onslaughts of rival critics; almost all have suffered from the fundamental defect of seeking to account solely by Western examples for architectural forms that were the creation of the East. Mau, in the weighty and balanced article which is still the highest authority for the pre-Christian basilica,[2] has laid down as an axiom that the civil basilica could not have made its appearance in Rome without having been preceded by widely known prototypes in Hellenistic art. The Greek name, the certainty that the type was known in Greek cities before its first introduction into Rome,[3] the fact that it is found largely in Southern Italy where Greek influence was supreme, are some of the considerations emphasised in his argument. Augustus when he built a Kaisarion at Antioch (B.C. 47), Herod when he set the long colonnades of his basilica at Jerusalem (B.C. 19), were copying, not the architecture of Rome, but the familiar Hellenistic model from which the Roman buildings themselves had sprung.[4]

[1] Strzygowski: Orient oder Rom., p. 148; Kleinasien, p. 43; Amra als Bauwerk, Zeitsch. f. Geschichte d. Architektur, year 1, part 3.

See Bréhier: Orient ou Byzance, Revue Archéologique, Nov., 1907, p. 396, for a general acceptance of Strzygowski's view.

Millet: L'Art Byzantin, in Michel's Histoire de l'Art, i., p. 139.

Butler: Tychaion of Is-Sanamên and the Plan of Early Churches in Syria, Revue Archéologique, Nov., 1906, p. 413.

Witting: Anfänge Christlicher Architektur, p. 7.

[2] Pauly-Wissowa: Realencyclopädie, under Basilica.

[3] The earliest Roman example is the B. Porcia built by Cato in B.C. 184. Cato's description implies the existence of basilicas in the Hellenistic cities.

[4] Dehio derives the Christian basilica from the Roman house, the atrium making the nave and the alae the transepts (Dehio and Bezold, Kirch. Baukunst, i., p. 63). But his eye is fixed on the basilicas of Rome, where the transept is almost universal, and he bases his argument upon a somewhat arbitrary view of the arrangement of the atrium displuviatum and on the assumption that the basilica with transepts existed only in Rome, which has been disproved by subsequent discoveries. Lange's criticism strikes at the root of his theory (Haus und Halle, p. 59. See, too, Riegl: Altrömische Kunstindustrie, p. 29). The courts of a house give no indication of interior

Before the period of the Christian basilica there existed sanctuaries which showed a marked tendency towards an apsed and three-aisled plan.[1] It must not be forgotten that Christianity and Mithraism (I name them together because they were practically contemporary in Europe) were the last of a long series of religions, having a general resemblance with each other, which had originated in the East and had conquered the West. These religions evolved a cult edifice suitable to their requirements, and as early as the third century B.C. the mystery temple assumed forms that foreshadow the Christian basilica.[2]

structural space, but the problem of the basilica was essentially a problem of spatial interior. Schultze also adopts the house theory (Archäologie d. altch. Kunst). Kraus believes the basilica to have been a combination of the cella cimiterialis, single or trifoliate apsed, with the three aisled hall common both in sacred and profane buildings in antiquity, but he leaves out of count the fact that the Christian basilica seems to have been fully developed in the East before Constantine. Moreover, the cella trichora belongs to a different group, that of the memorial chapel, and has not any essential connection with the basilica (Geschichte der chr. Kunst, i., p. 264). Witting rejects the idea of direct adaptation from the civil or the private basilica, or from any classical type, and sees a possible development from pre-Constantinian one-aisled chapels (Anfänge, p. 57).

No doubt on wide lines, the house is ever the prototype of the sanctuary, but the development of the latter is governed by hieratic exigencies, it is a long and slow process in which the house plays no part. This development must already have been far advanced, in sanctuaries that directly influenced the Christian, before the private basilica, the Roman house or the Greek house attained to the perfected forms that we know through Vitruvius and modern excavation (see for example Wiegand and Schrader: Priene, p. 285).

[1] See *inter alia* A. Springer: Handbuch d. Kunstgeschichte, ii., p. 16.

[2] Hierapolis, Lucian: de Syria Dea, c. 31.

Samothrace (276-247 B.C.). Rubensohn: Die Mysterien Heilig. in Eleusis und Samothrake, p. 148. Conze, Hauser and Benndorf: Untersuchungen in Samothrake, p. 29.

Baalbek, so-called Temple of Jupiter: Jahrb. des k. d. arch. Instituts, 1902, p. 94.

Megalopolis, Supp. Papers I. issued by the Hellenic Soc., p. 58.

Gortyna, Monum. ant. dell Acca de' Lincei, 1892, p. 9.

Heddernheim, Cumont: Textes et Mon. Fig. relatifs aux Mystères de Mithra, ii., p. 370.

In some of these the cella is not divided into a nave and aisles but the adyton is three chambered.

At Gortyna the columns forming aisles are a late Roman addition.

Moreover, Hellenistic Syria was creating in the early centuries of the Christian era a form of temple between which and the Christian edifices that immediately followed on the same soil the resemblances are close.[1] The Jewish synagogues of this period have been proved to belong to a similar group.[2] It seems therefore that the gradual development of the basilica on Eastern ground from Eastern architectural motives is the historic process which is in course of being established by the most recent discoveries and which will be confirmed by excavation in the great Hellenistic cities.[3]

There is literary evidence of pre-Constantinian churches in Rome (other than the memorial chapels of the cemeteries), in Africa, and in Asia. In Rome they were probably small and connected with private houses.[4] In Africa it is possible that we can study in a ruined state shrines that may be dated before the peace of the church.[5] At Nicomedia we hear of a church pulled down during Diocletian's persecution.[6] The Edessa Chronicle mentions a church that was destroyed by floods in

[1] Butler: Rev. Archéol., Nov., 1906, p. 413.

De Vogüé: La Syrie Centrale, i., p. 55, for the civil basilica at Shakka and its relation to the Christian basilica at Tafkha; p. 59, for the civil basilica of Kannawât converted into a Christian church.

[2] Archæologists have long been misled by the unaccountable errors with regard to synagogues committed by the members of the Palestine Survey. They represented these buildings as consisting almost without exception of an oblong chamber divided into five aisles by four rows of columns. The recent German expedition has disproved these observations in every case. All the synagogues are furnished with two rows of columns. In many examples these columns are arranged so as to form an interior portico round three sides of the building; usually the synagogues were provided with a raised nave flanked by upper galleries (Mitteilungen d. Orient Gesellschaft, No. 29).

[3] Josephus mentions a civil basilica in Antioch. It is possible that libraries and other buildings were in the basilical form. The Talmud describes a three-aisled synagogue in Alexandria built in the year 162 B.C. (Lange, *op. cit.*, p. 125). The basilica of Maxentius in Rome may reproduce forms that existed in the cities of the Diadochi.

[4] Kraus, *op. cit.*, i., p. 271.

[5] Witting: Anfänge, p. 59.

[6] Witting (*op. cit.*, p. 58) thinks it must have been an insignificant building; Schultze (*op. cit.*, p. 45, note 2) assumes it to have been a basilica.

the year 201.[1] In the absence of detailed descriptions there is one fact that throws light upon these buildings: the basilica was familiar to Oriental architects at the time of Constantine. The emperor when he built his great church of the Holy Sepulchre in Jerusalem thought it unnecessary to tell the Bishop Macarius more than that he was to construct the finest basilica that had yet been seen; he gave no further indication of the kind of church he desired, the bishop was understood to know the form a basilica would necessarily take.[2] In the Perigrinatio S. Silviae Aquitanae it has been thought that to the Western pilgrims the church was different from any they had yet seen;[3] but the later date recently assigned to that document sets this evidence in a new light (see p. 20).

If this view of the origin of the basilica be correct it would be disconcerting to find that the type was abandoned in the East after the age of Justinian,[4] or that it never played more than a secondary part.[5] But I do not see how it is possible to admit these statements. It is indeed true that the centralised form of architectural plan was developed side by side with the basilical, that beautiful churches were created by the combination of the two, and that after the eleventh century the centralised building gained permanently the upper hand, but the survival during so many centuries of the domed basilica, and the basilical tendencies exhibited by the domed cruciform (Skripu, Dere Aghassi,[6] Trebizond), show how strong a hold the basilica had laid upon the imagination of Eastern architects. To this must be added the important fact that it continued to be the plan most frequently used in many districts of Central Anatolia. To the Kara Dagh and the Karadja Dagh must be reckoned the Isaurian country immediately to the west, traversed by the Prague expedition, where numerous basilicas of the Kara Dagh type were found.[7] It is scarcely

[1] Schultze, p. 31.

[2] Eusebius: Vita Constantini, book iii., chapter xxxiv.

[3] Quoted by Witting, p. 58.

[4] Texier: Architecture Byzantine, p. 10.

[5] Wulff, *op. cit.*, p. 96.

[6] Wulff, p. 66.

[7] Vorläufiger Bericht, Mitt. d. Gesell. zur Förderung deutscher Wissenschaft in Böhmen, No. 15.

necessary to call attention to the basilicas of North Syria and of the country most closely allied to Syria, Cilicia.[1] How far East the basilica maintained its supremacy we are not yet in a position to say. My own observation shows a tendency to its disappearance as I travelled eastward, and Armenia would seem to have employed it but little if at all.

There can be no doubt that in different parts of the Roman Empire the basilica assumed different dominant forms. In Africa there was a predilection for the square apse, which is also often found in North Syria; in Rome the transept was widely used;[2] in the eastern coastlands the tribune was frequent,[3] and the wooden roof was universal here as in Rome; in North Syria the wooden roof was also adopted, but in combination with peculiar arrangements of the narthex (when a narthex is found) and of the presbyterium; in Central Asia Minor the narthex corresponds with the Syrian, the presbyterium is totally different, the wooden roof and the atrium are practically unknown, while not only are there no tribunes (except in No. 32, which does not belong to the central Anatolian group), but very frequently there is no clerestorey. It is

[1] I published a number of these churches in the Rev. Archéol. for 1906. It has been suggested with great probability that most of them belong to the period of the kingdom of Lesser Armenia or were largely restored by the Armenians. One I had already signalised as Armenian. It is interesting to observe that the Armenian builders adopted the basilica of the country.

[2] It is, however, found in Central Asia Minor: Sagalassos, Lanckoronski: Städte Pamphyliens und Pisidiens, vol. ii., p. 150. Strzygowski has already pointed out that at Gül Baghche near Smyrna and at Kanytelideis in Cilicia transepts are foreshadowed (Kleinasien, pp. 49, 54). Rott has published two remarkable churches with transepts at Perge (Kleinasiatische Denkmäler, pp. 47, 51). I suspect that my church I. at Korghoz should be classed with these (Rev. Archéol., 1906, vol. viii., p. 8).

[3] Jerusalem, Tyre, St. John Studios C'ple, S. Demetrios Salonica, where it is combined with transepts. But it is misleading to state that the East as a whole chose the two-storeyed aisle (Dehio, *op. cit.*, p. 77). Constantine's church at Bethlehem had no tribunes, there are none in the North Syrian churches. On the Anatolian plateau tribunes were not universal even in centralised buildings (see Keil's reconstruction of the church described by St. Gregory of Nyssa, Kleinasien, p. 76). The question of tribunes is more complicated, and must be posed differently.

with the last Anatolian series that I am concerned. Structurally it is entirely disconnected from the coast type and related to the North Syrian only by traits which Syria herself borrowed from Inner Asia.[1]

The basilical churches of the Kara Dagh fall under two heads, the true basilica and the barn church. Basilicas are Nos. 1, 6, and 7, all belonging to the group of repaired churches which we believe to have been built before the Arab invasion. From analogy I should place No. 21 among the basilicas ; it is also pre-Arab. Hamilton's description implies that No. 3 must be classed with these ; judged by its mouldings it is possible that it too might belong to the earlier group, but the epigraphic evidence does not point to this conclusion (see Part IV.). Finally, in Deghile, No. 31 is a basilica and it must certainly be placed before the invasion. It seems therefore that there were no barn churches of the earlier date and no basilicas of the later, but the argument must not be pressed too far on account of the uncertainties of the chronology, and of the fact that No. 5, which has a late moulding round the apse, may well have been a basilica though the evidence is not sufficient to admit of a decision. Moreover, I doubt whether the convenient distinction between basilica and barn church adopted by archæologists would have been acceptable to the architects of the Kara Dagh. It is not unlikely that they regarded the two types as one and the same, with a slight variation according to the size of the building. Churches with a short nave containing only three or four arches to the arcade of the aisles, such as Nos. 4, 15, 16, and Maden Dagh, would be sufficiently lighted by the apse windows and the subsidiary light from the windows of the aisles, but when the nave was longer it would need additional illumination from above. Except in the matter of length there is no difference in ground plan between the two schemes. The barn church is inseparably connected with the use of the vault, and can only have arisen in a country where the vault is at home. It is one of the features that mark the essentially Asiatic character of the Anatolian plateau ; wherever it appears Asiatic

[1] Strzygowski has already observed that the stone basilica of the East shows no Roman influence (Byzantinische Denkmäler, iii., p. xv.).

influence must have been strong.[1] Parallel barrel vaults, laid one against the other so that the one counteracts the thrust of the other, are an architectural motive that existed in Mesopotamia at least as early as the beginning of the third century A.D. They appear in the Parthian palace at Hatra,[2] and were employed

[1] As is well known, it was common in the South of France in the eleventh and twelfth centuries (Dehio and Bezold, *op. cit.*, i., p. 358). Dehio is at a loss to explain the early appearance of the vault in this district. He rejects the possibility of Asiatic influence because the vault was fully established before the Crusades, and also because he knows of no parallel in Syria. It must be remembered that twenty years ago, when he published his great book, no one had yet troubled to record the churches of Central Asia Minor. He is reduced to conjecturing that the French builders, with a lively remembrance of the havoc caused by Saracen and Norman invasions, adopted the vault as being less amenable to fire than the wooden roof. He cannot see why the frequent use of the polygonal apse should imply a connection with the East. The barn church gives his imagination wide play. He couples it with Celtic influence, and observes that the dim unlighted nave accords well with the Celtic love of mystery. His theory that the three parallel vaults of equal height were due to the timidity of workmen, who sought to minimise the thrust of the central vault by raising the outer pair, is not necessarily correct when applied to buildings of this date. The architects of the Kara Dagh, at an earlier period, were perfectly capable of laying a long vault over clerestorey walls, indeed it is only in small churches that they employed the simpler form. Vault, barn church, polygonal apse, the very masonry of the vaulting, so closely allied to the masonry of the Kara Dagh, all these I believe to be of direct Asiatic origin, and Dehio himself indicates, though unconsciously, the path by which they travelled when he describes the number and power of the monasteries. It was Oriental monasticism that flooded the West with Oriental art (see Strzygowski *passim*, particularly Die Miniaturen des serbische Psalter, p. 88; also Guyer: Die christlichen Denkmäler des ersten Jahrtausends in der Schweitz, p. 7). Gerola has recently published a very remarkable series of Cretan churches, mainly of the Venetian period (Monumenti Veneti nell' isola di Creta). In spite of their late date they are certainly valuable to students of Asiatic architecture. Gerola observes (ii., p. 249) that while the decoration of the Cretan churches shows Italian influence, the plan and structure is "Byzantine". I would go yet further and say that the predominant influence is Anatolian, and Millet is of the same opinion. I shall have occasion to refer to the Cretan series again, meantime I would note that the barn church is of frequent occurrence (see *inter alia*, vol. ii., pp. 78, 96, 182, 192).

[2] Dieulafoy: L'Art antique de la Perse, v., p. 14. Phené Spiers: Architecture East and West, p. 63. Mr. Phené Spiers publishes some excellent

by the Sassanians in their palaces at Firuzabad[1] and Ctesiphon.[2] The Parthian and Sassanian builders copied schemes that can be traced back to earlier Mesopotamian tradition. Dieulafoy describes Hatra as an imitation of Persian constructions which have now vanished,[3] Perrot speaks of the Parthian and Sassanian palaces as continuing the traditions of the ancient Chaldaean school.[4] Nor is it only in Mesopotamia and in Persia that the prototypes of the barn church are to be found. The Syrian desert offers a continuous series of examples, from the military camp of the Roman imperial period down to the hunting lodge of the Ummayad khalifs. Of these it will be sufficient to cite the enigmatic three-aisled building at Muwakkar,[5] the halls of Mschatta,[6] and the throne room of Kuseir 'Amra.[7] The barn churches of the Kara Dagh preserve intact a scheme of roofing which is of great antiquity in Asia; the basilicas, together with the Asiatic vault, have combined a system of lighting by raising the inner walls and piercing them with windows, which is probably due to the creative imagination of the great Hellenistic cities.

When we come to details of construction we find that the basilica and barn church of the Kara Dagh are alike far removed

drawings and plans of Layard's in the Transactions of the Royal Institute of British Architects for 1891. The German excavators at Ashur are now engaged on an extensive publication, the first part of which has already appeared.

[1] Over the parallel chambers on either side of the entrance. Dieulafoy, *op. cit.*, iv., p. 32, Fig. 24, and Pl. 13.

[2] Lateral chambers. Dieulafoy, *op. cit.*, v., p. 64, Pl. 4. The date of Firuzabad and Sarvistan is uncertain ; Dieulafoy believed them to belong to the Achaemenid period, Perrot and Chipiez place them either in Parthian or in Sassanian times, Flandin and Coste in Sassanian. The Sassanian theory appears to me the most probable.

[3] *Op. cit.*, v., p. 24.

[4] Perrot and Chipiez : Histoire de L'Art dans L'Antiquité, ii., p. 260. I quote always from the French edition.

[5] Brünnow and Domaszewski : Provincia Arabia, ii., p. 187.

[6] Mschatta : Strzygowski, p. 246 and Fig. 27.

[7] Kuseir 'Amra, published by the K. Acad. der Wissenschaften, Vienna, pl. 7. For the date of the building see Nöldecke : Zeitschrift d. deutschen morgenländischen Gesellschaft, lxi., p. 222, and Becker : Zeitschr. für Assyriologie, xx., p. 355.

from any relation with the antique. Let us take first the narthex. It is with a single exception to be found on every one of these churches.[1] In plan it is always of the same type. There is an open entrance chamber of columns and arches communicating with the nave by a doorway provided with a door; only in No. 1 is the inner entrance doorless also. Two other chambers are laid against this, one on either side; the southern is invariably walled off and unapproachable except from the S. aisle, while the northern is in two cases walled off also (Nos. 1 and 21), but in the other churches an archway has been substituted for the wall and, except in Nos. 6 and 7, there is no doorway into the N. aisle. No. 32 belongs to a different group and will be treated separately; No. 42 is too small to allow of any walled-off chamber in the narthex, or even of an open portico; No. 16 and Maden Dagh vary slightly from the usual plan, but their divergence is probably fortuitous or due to special conditions. For the superstructure of the narthex four examples can be studied, together with De Laborde's drawings of two façades, one of which has since fallen completely; Nos. 1, 6, 7, and 16 (the last named from De Laborde only) in the lower town, No. 31 in Deghile. Fortunately these include both the narthex with the closed and with the arched N. chamber, and it is clear that there is no difference between them. The chambers of the upper storey are in Nos. 1 and 31 lighted by a window of two lights in the centre of the façade with a moulded string-course running across the wall below it; No. 6 has had the same central window but is without the string-course; De Laborde gives the string-course in Nos. 7 and 16, but inserts a greater number of windows arranged in groups, and it is not now possible to determine whether his drawings are in this particular correct or no. In all cases where the walls are standing, tiny slit-like apertures in the masonry gave some light to the N. and S. chambers of the upper storey, and the same is true of all the closed chambers of the lower storeys. De Laborde

[1] The exception is Kaya Sarintch, a church half-way between Maden Sheher and Deghile. It has a triple apse, which feature would alone serve to differentiate it from the usual type. It is discussed further on p. 313.

indicates a second upper storey in No. 16; from what remains of the narthex of No. 7 there was certainly a second upper storey here also, though De Laborde's drawing is by no means clear on this point. How the façade terminated cannot definitely be made out; the drawing suggests a straight cornice in No. 16. Crowfoot at once perceived that the narthex of the Kara Dagh belonged to the group that Puchstein has defined as the Hittite Hilani.[1] The well-known Syrian examples are Kalb Lozeh,[2] Turmanin,[3] and Ruweiha,[4] all with a single arch over the central entrance and no columns, and with the tower-like nature of the structure on either side strongly marked by a set-back in the central part of the upper storey; Swedah[5] is of the same class though it exhibits differences in detail; Bakuza,[6] one of the churches at El Barah[7] and the single-aisled chapel at Babuda[8] more closely approach the Anatolian columned scheme. *Mutatis mutandis* these and other examples given by Puchstein all belong to the same essentially Asiatic family. The same narthex occurs in the Isaurian churches, concerning which the members of the Prague expedition kept us so long in suspense.

The apse is as uniform in the Kara Dagh as is the narthex. There are but four exceptions to the rule of a single apse. One of these is in a very small one-aisled chapel (No. 17), and one in a church which I regard as a domed cruciform (cross in square; it is Tchet Dagh). The other two are both in churches with a nave and aisles, No. 42 and Kaya Sarintch. Kaya Sarintch is the church which has already been mentioned as having no narthex. The ground plan shows a close resemblance to that of a barn church of Armenian origin on the acropolis of Anazarbus.[9] This church bears a memorial inscription to Theodore, son of Constantine, King of Lesser Armenia, who reigned from 1100 to 1120. It was he who took Anazarbus from the Byzantine emperors and made it his capital. It is

[1] Die Säule in der assyrischen Architectur, Jahrb. des k. d. archäol. Instituts, 1892, p. 1.

[2] De Vogüé: La Syrie Centrale, pl. 124.
[3] *Ibid.*, pl. 132.
[4] *Ibid.*, pl. 68.
[5] *Ibid.*, pl. 19.
[6] *Ibid.*, pl. 118.
[7] *Ibid.*, pl. 60.
[8] *Ibid.*, pl. 67.
[9] Rev. Archéol., 1906, vol. vii., p. 24.

scarcely possible to place the three-apsed churches and chapels of the Kara Dagh at so late a date. Political conditions in Cilicia were very different from those on the Anatolian plateau, and there is no reason to suppose that the Kara Dagh, which lay in the centre of the Seljuk power, should have retained, after the Seljuk invasion in 1072, any Christian population important enough to have erected churches or capable of doing so. But this does not exclude the possibility of direct Armenian influence before the Seljuk conquest and we may have evidence of it in these triple apses. It is not, however, a point on which I can feel any degree of certainty. In every case the two subsidiary apses are so completely assimilated to the Anatolian ground plan that it is open to question whether they should not be regarded as semi-circular niches, like the niches which are set in the aisles of the very early basilica at Tafkha already mentioned, rather than as apses. They are never allowed to interfere with the straight exterior line of the E. wall of the aisles nor, therefore, with the dominant exterior aspect of the central apse; they are merely hollowed out of the thickness of the aisle wall.[1]

The earliest builders of the Kara Dagh had conceived the sanctuary in a remarkably simple form and this it retained all through the Christian period. Other communities may have striven to develop their architectural schemes in accordance with their developing ritual, in the Kara Dagh they contented themselves with less complicated contrivances.[2] The structure of aisles, nave and apse continued unchanged, but a part of the nave was cut off from the congregation and handed over to the clergy. The altar was placed in the first eastern bay of the nave (in No. 31 it is probable that the first two bays were devoted to the presbyterium), which was screened off from the rest of the church by wooden rods hung with draperies, or by stone slabs carved on the outer surface with a cross. We have evidence of this very primitive iconostasis in Nos. 3, 6, 21, 31

[1] *Cf.* the church at Sbeitla in Tunis (Archives des Missions Scientifiques et Littéraires, 1887, p. 92).

[2] Witting, *op. cit.*, p. 79 *et seq.*

and Maden Dagh; doubtless it existed in other churches from which the trace of it has now been obliterated.

The single apse without side chambers is not unknown in Syria, though it is rare. It occurs at Zebed[1] and at Kalb Lozeh.[2] In the last-named the choir was raised and extended beyond the apse to a line quite clearly marked, where it was closed by a balustrade three feet high. De Vogüé observed besides traces of an iconostasis which he says was added at a later date. The ends of the aisles were shut off so as to form prothesis and diaconicon. The presbyterium is here more fully developed than in the Kara Dagh, but the two systems may well be compared. They are the same in principle. In Africa the single apse is usually accompanied by side chambers, but there are examples in which these chambers are not structurally divided from the body of the aisle. I may cite Khirbet el Azreg[3] and Henshir al Atesh.[4] In both cases two bays of the nave are used for the sanctuary, as in No. 31. In Rome the same system was adopted where there were no transepts, side apses or side chambers: for instance, in St. Agnese, and SS. Nereo ed Achilleo. In Ravenna there are instances where the presbyterium was confined to the single apse (St. Apollinare Nuovo) as may often have been the case in the Kara Dagh. The single apse without side chambers, *i.e.*, the simplest form of the presbyterium, can be found in all parts of the empire applied to early Christian buildings; it was common to numberless buildings of the pre-Christian period; but in the Kara Dagh it was the only presbyterium known and the builders never attempted to improve upon it.

A distinctive feature of Central Anatolian churches is the stumpy double column familiar to all travellers on the plateau, either in its place among the ruins or built into innumerable modern edifices. I have found it also on the Cilician coast, not however in the nave, where the round column is universal, but

[1] Butler: Architecture and other Arts, p. 302 (Publication of the Princeton Expedition to Syria, vol. ii.).

[2] De Vogüé, *op. cit.*, pl. 122, p. 135.

[3] Mélanges d'archéologie et d'histoire, 1894, p. 47.

[4] Gsell: Monuments antiques de l'Algérie, ii., p. 171.

dividing the lights of the windows.[1] It is to be seen in the same position in the church of San Giovanni Evangelista at Ravenna.[2] It appears in Egypt, at El Hayz in the Libyan Desert,[3] and in a slightly modified shape at Tipasa in Algeria.[4] But these are sporadic examples and the true home of this peculiar form of the engaged column is Asia Minor. It is found before the Christian period at Aphrodisias in the propylon of the temple peribolus,[5] and on the lovely canopied tomb at Mylasa.[6] We have in the British Museum a large, oval, Corinthian capital from Ephesos which cannot have belonged to anything but a double column. It occurs in the theatre at Kremna.[7] In the pre-Christian basilica at Aspendos[8] there is a form with only one half column. It has been found in the Christian basilica at Miletos.[9] In the Hassan Dagh district wherever a column is used it is a double column, but as a rule columns are confined to the narthex. It is noticeable that in the Kara Dagh, even when oblong piers are placed in the nave, the double column is found in the narthex, the only exception to this statement being No. 6 where the oblong piers of the nave reappear in the narthex. Oblong piers and double columns seem to have been employed indifferently; Nos. 6, 7, 32, 33 and Kaya Sarintch are the churches with piers. Piers are also found in Nos. 1 and 21, but only as part of the later restoration. The oblong pier is known in the coast lands at Nicaea and in a church belonging to the same group as Nicaea, St. Clement's, Ancyra.[10]

The prevalence in the Kara Dagh of the horse-shoe arch,

[1] Kanytelideis Church 1, and Korghoz Church 2, Rev. Archéol., 1906, vol. vii., p. 408; vol. viii., p. 18.

[2] Rivoira: Le Origini della Architettura Lombarda, i., p. 9.

[3] Kugler: Geschichte der Baukunst, i., p. 374.

[4] Mélanges, 1894, p. 336.

[5] Antiquities of Ionia, vol. ii.

[6] *Ibid.*

[7] Lanckoronski, *op. cit.*, ii., p. 167.

[8] *Ibid.*, i., p. 98.

[9] Sechster vorläuf. Bericht über Ausgrab. in Milet, p. 30.

[10] For the influence of the double column on Romanesque architecture, see Strzygowski: Kleinasien, p. 207.

both in elevation and in plan, has been noticed by every traveller in turn. The horse-shoe arch is admitted to be of Asiatic origin. It is not confined to Central Anatolia, but is found in all countries that derived their architectural tradition, either completely or in part, from a common Asiatic source, North Syria, Armenia, Mesopotamia, Persia, and the art of Islam all over the world.[1] It is but another of the many proofs of the markedly Oriental character of the Anatolian plateau. In the Kara Dagh the horse-shoed ground plan for the apse occurs eight times in churches of the basilical type, and five times in other churches and chapels (Nos. 11, 17, 35, 38, and 46). As far as can be determined, all these apses were horse-shoed in elevation also, but there are examples of stilted round apses which are horse-shoed in elevation (No. 31, Maden Dagh, the cruciforms on Mahaletch, and the detached exedra of No. 7, which has hitherto been wrongly drawn). In the Hassan Dagh the horse-shoed ground plan is even more common; I found only five examples of the stilted round apse. It is customary there to give the barrel vaults a horse-shoe curve, and this system, though it was rarer in the Kara Dagh, was not unknown, for it is found at Mahaletch and in the small chapel No. 12. (In the original roof of No. 1 the ribbing arches were horse-shoed but not the vault itself.) The horse-shoe is almost invariably used in the Kara Dagh for window arches. Dehio has observed with regard to the lighting of early Christian basilicas that in Rome windows were as a rule confined to the clerestorey, whereas in Ravenna they were placed also in the aisles and apse.[2] The churches of North Syria and of Asia Minor leave no doubt as to the genesis of the Ravennese windows. In the Kara Dagh every aisle, except in the very smallest buildings, such as No. 23, was lighted by windows in the long walls and at the E. end. (Where windows do not appear in the plan it is only because the walls are ruined down

[1] Kleinasien, p. 31. The horse-shoe arch was known in Spain before the Arab invasion (Zemp: Das Kloster zu Münster, p. 23). Butler has found examples of its use at a very early date in the Christian architecture of North Syria, and I have observed it in the very early churches of the Tur Abdin.

[2] *Op. cit.*, i., p. 108.

to the foundations; there can be no doubt that these churches followed the universal rule.) The windows are usually small rectangular openings, the masonry set aslant on either side so that the window is larger on the inside than on the outside. The same **V**-shaped windows are found in monastic buildings; they are common in North Syria, both in domestic and in ecclesiastical architecture from the fourth century onwards.[1] In four of the churches of Maden Sheher, Nos. 1, 3, 4 and 5, these small windows are replaced by large openings of two lights divided by a double column. The double-arched window appears in several of the apses even where the small **V**-shaped window is used in the nave (Nos. 32, 33, 34, Mahaletch, Maden Dagh). It is also found in the upper storey of the narthex (Nos. 1 and 31). Similar arched windows, but not arranged in groups of two, lighted the apses of Nos. 1, 3, 5, and 36; they are to be seen too in No. 8. In all cases where the windows are of sufficient size and importance to admit of their being covered with an arch the masonry of the side walls is not slanted, and the opening is as large outside as inside.[2]

All the churches I saw in the Karadja Dagh were ruined below window level. In the Hassan Dagh I came across no example of the rectangular **V**-shaped opening, the typical window being much larger, arched and without the slanted side walls. The **V**-shaped window occurs however in the church near Andaval planned by Smirnov.[3]

In many of the churches the entrances from the narthex are supplemented by doors leading into the N. and S. aisles; in Nos. 1 and 6 these doors were provided with vaulted porches. The side door, with or without the porch, is found not only in Asia Minor, but in Syria and Armenia; Strzygowski sees in it another proof of the common origin of the architecture of these countries.[4] The Syrian porch, a stone canopy set on columns

[1] Butler: Architecture, p. 124 Serdjilla, p. 153 Djeradeh.

[2] Guyer is therefore incorrect in stating that all the windows of the Kara Dagh churches narrow in width towards the outside (Christliche Denkmäler, p. 11). They vary in accordance with the rule just stated.

[3] Kleinasien, p. 65. See, too, Rott: Kleinasiatische Denkmäler, p. 102.

[4] Kleinasien, p. 155. He has frequently insisted on the unantique aspect of doors and windows in the long walls of these churches, which he

(*cf.* Bakuza),[1] differs considerably from the heavy Anatolian porch, a barrel vault on walls (see Sarigül, p. 339).

The churches of the Kara Dagh are singularly lacking in plastic decoration. With the exception of the carved stones in No. 2 there is no attempt at sculpture beyond mouldings in simple forms and capitals that are not so much carved as blocked out. Perhaps I should add to these a couple of lintels, rudely worked with figures of men and animals, which are built into a wall near No. 1. How far this is true of all the architecture of Central Anatolia I cannot say. In the Karadja Dagh I saw many fragments of capitals worked with acanthus leaves, and at Dagh Euren there is a church with doorways elaborately decorated with vine scrolls. Both in this mountain and in Hassan Dagh I observed a number of decorative motives unknown to the Kara Dagh, and Rott found carved capitals and lintels at Tomarza in Cappadocia,[2] but when all is said and done the general impression is the same: colour, and not the plastic arts, was counted on to adorn these buildings.[3] There are traces of fresco in the interior of almost every church in the Kara Dagh; in every building the inner surface of the walls was left rough to receive plaster, and the occasions on which the plaster was not covered with colour must have been rare. Sometimes the mouldings themselves have been plastered and coloured (Nos. 10, 11 and 12, and the door mouldings of No. 31). On one of the few façades that are standing, No. 1, there was an attempt to break the monotony of the masonry by inserting darker stones at regular intervals; it is most probable that this was not the only example of colouristic decoration

believes to be characteristic of the Central Anatolian and Syrian group. Windows in the long walls of temples are possibly earlier than the Christian period in Syria (Kleinasien, p. 130).

[1] De Vogüé: La Syrie Centrale, pl. 118.

[2] Kleinasiatische Denkmäler, p. 186. I myself visited Tomarza this year (1909).

[3] The R.P. Guillaume de Jerphanion makes a similar statement with regard to the Cappadocian rock-cut churches (Bulletin de l'Acad. des Ins. et Belles Lettres, Jan., 1908, p. 15). See, too, his article in Revue Archéol., July, 1908.

applied to the exterior.[1] Façades brightly coloured with paint are not infrequent in rock-cut churches; I myself observed several instances in the Irkhala Dere near Pelistrama, where traces of red and blue still clung to the horse-shoe arcading that ran along the face of the rock (notably on the façade of a rock-cut church known as Ala Klisse); Rott found colour on the rock-cut façades in Gereme.[2]

This is the moment at which to consider the one church in the Kara Dagh that breaks through many of the accepted rules just enumerated. No. 32 differs in most points from all other basilicas or barn churches. The narthex does not belong to the Hilani type; there is no central open portico, but instead three doorways of almost equal importance which have been provided with doors. A slight recollection of the usual plan is, however, maintained in the walling off of the southern chamber. This narthex does not, like all the other examples, fall into line with the N. and S. walls of the body of the church, but is prolonged on either side by a chamber which projects beyond the outer wall of the aisles. In the central part of the upper storey, instead of the wall that cuts off the similar chambers of Nos. 1 and 31 from the nave, there are indications which point with complete certainty to an arched opening; moreover, leading out of the upper storey of the narthex there were tribunes that flanked the nave. The open arcades of these tribunes afforded a view of the nave from either side; the nave and presbyterium could be fully seen from the tribune of the narthex. In the ground plan the simple arcades of the Kara Dagh nave underwent a radical change. The easternmost bay was carried not by double columns but by two large masonry piers. The other bays vary in length from 1·70 m. to 1·82 m., but the eastern bay is 13 centimetres longer than any, and the effect is enhanced by the additional length given by the size of the piers (1 m. long × 0·95 m. wide) as compared with the narrow proportions of the double columns (0·54 m. from E. to W.). The western engaged columns and narthex walls of the lower storey are replaced in

[1] See below, p. 400, for the different coloured masonry of Ala Klisse in the Ali Summassi Dagh, and Rott's description of Tomarza (*op. cit.*).

[2] Kleinasiatische Denkmäler, p. 211.

the upper by masonry piers corresponding exactly with those which stood at the eastern end of the tribune arcades above the piers of the ground floor, so that we find in the upper storey an ordered interchange of double columns and piers. The eastern bay of the aisles was marked off by a transverse arch laid between the piers and the outer walls and interrupting the regular length of the barrel vault. The chambers thus indicated opened into walled-off rooms projecting from the aisles to N. and S. A moment's inspection of the plan will make it evident that but slight modifications would have been needed to turn this church into a domed basilica. One other significant detail must be mentioned: the mouldings on the W. front depart from the stern simplicity which usually prevails, and instead of being confined to the lintels and jambs of the doorways are carried, after the Syrian manner, in a continuous band round the relieving arches, a band which runs all round the church. This decoration, as has been pointed out, is awkwardly managed and is interrupted in the wall space between the three doors, but the intention is obvious however clumsily expressed. It is evident from all these facts that we are no longer dealing with the Kara Dagh type of church, and I may add that it is no bad proof of the persistence of that type that the divergence should be so apparent. If the artistic tradition embodied in No. 32 is not local, it must be imported from outside; whence did it come?

Clearly the most important feature is the upper galleries laid on three sides of the nave. These galleries have already been mentioned as appearing in some, but not in all, of the Oriental basilicas of the fourth and fifth centuries (Jerusalem, Tyre, St. John Studios), where they had probably been taken over from the classical basilica; they are typical of the centralised church in most parts of the empire (Nazianzos, the memorial church to his father described by St. Gregory,[1] SS. Sergius and Bacchus, San Vitale, No. 10 in the Kara Dagh —not however in Armenia, and the omission is significant). They are very generally adopted in the combination of the centralised and basilical plans which Strzygowski has named

[1] Hübsch: Altchristliche Kirchen, p. 44 and pl. 19.

the domed basilica. Where are these domed basilicas to be found? In Salonica[1] (St. Sophia), in Constantinople (St. Irene,[2] St. Sophia and probably also the Kalender Djami, which Wulff places in close connection with St. Sophia Salonica[3]), perhaps at Ephesos and Philippi,[4] at Kasr ibn Wardan in Syria, a church dated in the year 561,[5] at Khodja Kalessi in Cilicia Trachaea,[6] which Strzygowski dates before the year 400 and Wulff about 450, at St. Clement's, Ancyra, dated by Wulff about the middle of the eighth century,[7] at the church of St. Nicholas, Myra[8]—these are the salient examples of the domed basilica. I

[1] Wulff: *op. cit.*, p. 36 *et seq.*

[2] St. Irene is a transition form: Wulff, p. 108. For an admirable appreciation of the place occupied by St. Sophia, Constantinople, in the history of architectural development, see Strzygowski (Kleinasien, pp. 133-4).

[3] *Op. cit.*, p. 121.

[4] Jahreshefte des österr. archäol. Instituts, 1907, Beiblatt, p. 74, for Ephesos. Byz. Zeitschrift for 1902, p. 473, for an article by Strzygowski on Philippi. It is open to question whether both these churches do not belong to the class of domed cruciforms, but in any case their strongly marked basilical traits are obvious.

[5] Kleinasien, p. 121. Butler: Ancient Architecture in Syria, section B, part 1. The dating of the church is not quite certain. The palace is dated 564. Butler has added very materially to our knowledge of this remarkable group of buildings. I cannot, however, accept unquestioned his conclusions concerning it. He regards it as a direct inspiration from Constantinople rather than from Antioch; he is even inclined to believe that the brick used in its construction was imported from Constantinople. I would rather classify the church and palace at Kasr ibn Wardan, with their brick and stone walls, their intersecting barrel vaults and their strangely decorated lintels (these last Mr. Butler admits to be of local origin—unfortunately, he gives no sections of the moulded string-courses in which he says he detected foreign profiles), as a product of the architectural tradition of the Asiatic coasts. More complete information may enable us to trace the reflex action of the capital upon the provinces; meantime it is well to bear in mind Choisy's remark that in the age of Justinian the art of Constantinople, and even the architects, were borrowed from the coast lands of Asia (L'Art de bâtir chez les Byz., p. 162).

[6] Supp. Papers, No. 2, published by the Society for the Promotion of Hellenic Studies.

[7] Wulff, p. 154.

[8] *Ibid.*, p. 76. He dates it late in the seventh or eighth century. Rott: Kleinasiatische Denkmäler, p. 324, places it after the first millennium of the Christian era.

know of but one instance where this type appears without galleries: the Koimesis church at Nicaea, where, as Strzygowski observes, it is impossible not to feel that the fuller development is latent.[1] The prototype of No. 32 is one which is peculiar to the Hellenistic coast lands; it is found in Central Asia Minor only at Angora, and there in combination with a brick architecture which is at variance with the indigenous stone building of the plateau. This example apart, the tribune is used in Central Anatolia only in connection with the true centralised building, though it is not universal even there. But it is not this alone that brings No. 32 into relationship with the coast type. The winged narthex is found at Kasr ibn Wardan, at Dere Aghassi, at Ancyra, and at Nicaea. Finally the continuous band over the doorways of No. 32 is a peculiarly Syrian feature.[2] I believe therefore that in No. 32 we have an instance of artistic borrowing from lands where the architecture had been developed under strong Hellenistic influence. The unfamiliar traits were clumsily used by builders who adhered as far as possible to their own tradition, a tradition from which they departed only because it was ill-adapted to the objects they had in view. No. 32 was intended to serve a large monastic establishment; proper accommodation was needed both for the officiating clergy and for unconsecrated monks.[3] In the Kara Dagh, galleries were unknown and there existed no satisfactory plan for enlarging the presbyterium. It cannot be said that the architects of No. 32 were happy in their solution of the latter

[1] Kleinasien, p. 106. The date of the church does not affect the argument, as the type was established in the fourth century with Khodja Kalessi. Professor von Millingen, in his forthcoming work on the churches of Constantinople, will, I believe, give other examples of domed basilicas apparently without galleries.

[2] De Vogüé and Butler *passim*. The point will be more fully discussed in the section on mouldings.

[3] Texier: Architecture Byzantine, p. 66. Tribunes were generally intended for the use of women and catechumens, but as they are never found in the Kara Dagh we must conclude that the separation of the sexes was not practised, or that it was considered sufficient if the women occupied one of the aisles. That being so, there is no reason to suppose that the tribunes of No. 32 were for women.

problem. They did not add structurally to the space before the apse, but they marked off the last bay of the nave with big piers; they adhered to their inconvenient chapel-less aisles and set the additional chambers outside the aisles, with the disadvantage that there was no direct communication between them and the central apse;[1] they omitted the dome which was to be found in the prototypes, and handled most unskilfully the alien decorative motive which they applied to the façade; they retained the stone masonry to which they were accustomed and the double columns of the nave arcades; on the apse they used their own decoration, not the foreign continuous band.

With the exception of No. 32, I believe the basilica and barn church of the plateau to be characterised by traits distinctively Asiatic—vault, horse-shoe arch, side doors and windows, double columns, the Hilani narthex, etc. The clerestorey of the basilica must however, in all probability, be traced directly to Hellenistic influence, whereas the barn church is a type conceived and perfected by the Oriental builder.

2. Churches with a Single Chamber

There are very few examples in the Kara Dagh of churches without aisles or transepts, indeed for churches without transepts the basilica was so much the accepted form that it was applied even to such small buildings as Nos. 23 and 42. The single-chambered church is however to be found in monastic buildings (Asamadi, No. 17, Maden Dagh and Mahaletch, though in the last two cases it is but a secondary chapel on sites possessing more important churches) and also, in Deghile, as a tiny oratorium in connection with a tomb (Nos. 46 and 47; No. 38 probably belongs to this class). There is one other church in Deghile that demands attention, No. 36; it is the sole instance in the Kara Dagh of a group which is largely represented farther to the east. Crowfoot has given a plan of one member of this group, Yedikapulu, a little to the N. of

[1] Though I believe that the side chambers are in this instance a clumsy attempt at prothesis and diaconicon, I entirely agree with Guyer's comment on the side chambers at Romainmôtier (Christliche Denkmäler, p. 6). No doubt the church there is the T-shaped cruciform so common in Asia Minor.

Kaisarieh, close to the Halys.[1] It is larger than the Kara Dagh church, the length of the nave being nearly 12 m. as compared with a trifle over 8 m. at Deghile. In both cases the apse is polygonal; at Yedikapulu, we have the customary five-sided apse, but at Deghile an unusual figure has been adopted and the apse shows seven sides of a duodecagon. At Yedikapulu the interior of the apse is horse-shoed, at Deghile merely stilted, though it presents the general aspect of a horse-shoe owing to the two engaged piers on either side which narrow the opening of the apse. The western and more projecting pair of these engaged piers is to be seen also at Yedikapulu; the inner pair was rendered unnecessary by the horse-shoe curve. The differences between the two apses may be due to the fact that on the Halys the builders were using a form extremely common, indeed almost universal (the polygonal mantle is universal, the interior curve is sometimes stilted and sometimes horse-shoed), with which they were therefore well acquainted, whereas in the Kara Dagh the polygonal apse is the exception and the principles that were generally applied to its construction were less well known.[2] At Yedikapulu the builder has dispensed with the engaged piers and arched niches with which the nave walls were strengthened at Deghile; these however reappear in a much ruined church, about the same size as No. 36, which lies a few minutes to the W. of Gelvere, on the road from Irkhala (Fig. 252). Here the engaged piers are without capitals and run straight up into a stilted arch (Fig. 253), instead of showing the horse-shoe of the Deghile arches. At Gelvere and at Yedikapulu the door is set in the S. wall, at Deghile it is in the W. wall. The apse at Gelvere was polygonal outside but not horse-shoed within; the N. wall was completely ruined and buried under a mass of earth that had slipped down from above. At Viran Sheher, near Halva Dere, on the northern slopes of Hassan Dagh, I found an interesting church which is more nearly allied to Yedikapulu (Fig. 254). The walls to the N. and W. were broken by high

[1] Kleinasien, p. 28.

[2] There are only three other examples of the polygonal apse in the Kara Dagh, Nos. 3, 8 and 27.

stilted windows, three to the N. and two to the W. (Fig. 255). To the S. there was a door with a tower-like porch (Fig. 256), and an arched window on either side. Seen from the outside the windows in the S. wall seemed to be set uncomfortably close to the walls of the porch, as if they had been jammed against it, but in the interior, where the porch was not visible, the effect was better (Fig. 257). The door was without jambs, the lintel heavy and undecorated. The apse was set in a manner typical of Hassan Dagh, with an engaged pier forming in the ground plan a stilt to the horse-shoe curve that lies to the E. of it (Fig. 258). It was so much ruined that it was not possible to determine with certainty the position of the windows. There was, however, a small arched window low down in the centre (the arch over it is visible in Fig. 258), and I saw traces of another window higher up in the wall on the N. side; probably there were three windows at this level according to the usual custom. The exterior was polygonal. On the outer walls to N. and S. the beginning of the apse curve was strengthened by a buttress (Fig. 256) springing from a high plinth crowned by a moulding, the plinth being almost twice the thickness of the upper part of the buttress. The same moulding, a shallow cavetto set forward above a narrow band (Fig. 259), recurred upon the interior of the apse below the spring of the semi-dome. The masonry of the apse both inside and out was good, with stones evenly cut and carefully laid ; the semi-dome was built of large, well-cut stones in good Hassan Dagh style. This careful work was not however applied to the walls of the nave, though it reappeared in the barrel vaults, some courses of which remain. The masonry of the walls might almost be called cyclopæan. Very large unsquared stones were roughly fitted together and the interstices were filled in with rubble and mortar. This is the characteristic masonry of Viran Sheher. There was a vaulted cistern against the N. wall. The high stilted windows and the extremely rare feature of an outer buttress [1] give this church a peculiar aspect which has a certain affinity with Romanesque.

[1] There are outer buttresses on a church at Kesteli described by Headlam (Supp. Papers of the Hell. Soc., No. 2, p. 20).

Fig. 252.—Gelvere.



Fig. 253.—Gelvere, interior of chapel, S. wall.

VAULTED CHAMBER probably a CISTERN

METRES FEET

FIG. 254.—Viran Sheher 2.



FIG. 255.—Viran Sheher 2, from N.-W.



Fig. 256.—Viran Sheher 2, from S.



Fig. 257.—Viran Sheher 2, interior of S. door.

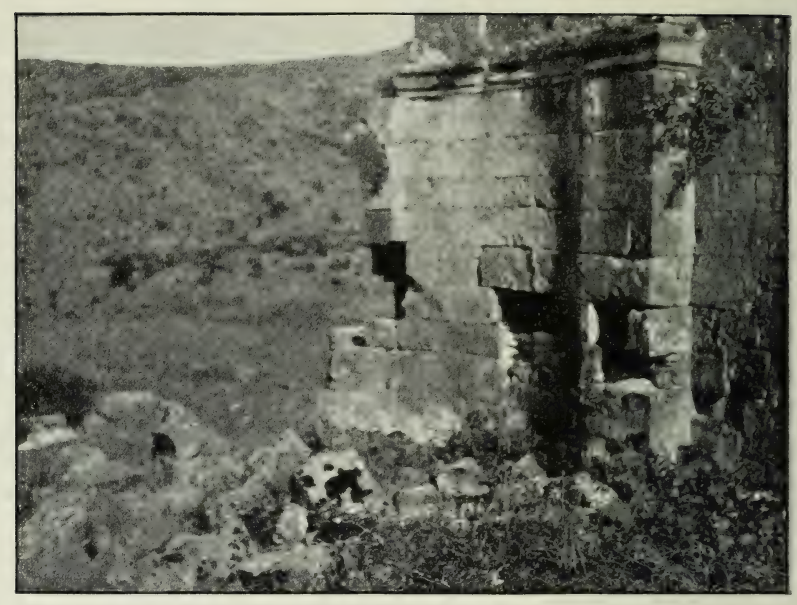


Fig. 258.—Viran Sheher 2, interior of apse.

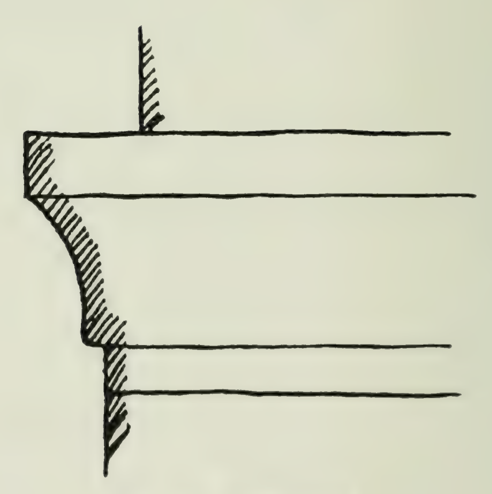


Fig. 259.—Viran Sheher 2.

To the W. of Halva Dere, on an outlying spur of Hassan Dagh, Ana Tepessi, there is another single-chambered church which deserves to be mentioned on account of its singularly perfect state of preservation (Fig. 260). There were no other buildings near it, but the rocks to the S. had contained a few caves, and below the chapel the hill was terraced as if for vines. The apse was rounded inside (but lacked the straight stilt customary in Hassan Dagh) and polygonal outside. There was a door to the W. with a high relieving arch, of which the tympanum had been filled in with masonry, and a window above it (Fig. 261, *cf.* the smaller chapel at Asamadi). The lintel was undecorated and there were no jambs. The apse was lighted by three arched windows (Fig. 262); the vault and semi-dome were almost perfect, and it was curious to observe how the first was fitted on to the second. The vault was built one course of masonry higher than the semi-dome, so that the one had the appearance of telescoping into the other. This is exactly the system adopted on a far larger scale in a long vaulted chamber at Nineveh.[1] On the outside, the walls had been carried up so as to conceal the curve of the vault; probably they were finished by a moulded cornice. Inside, both barrel vault and semi-dome were horse-shoed; they were beautifully built in the best style of Hassan Dagh masonry. Two courses above the point at which the curve of the barrel vault began there were three holes on either side for beams.

A good cyma moulding ran round the apse under the spring of the semi-dome (Fig. 263), a dentil or modillion moulding was carried round the exterior of the apse and over the arches of the windows (Fig. 264) serving the purpose of a dripstone. It was clumsily managed; the straight band of modillions broke off abruptly when it reached the voussoirs, and the arched band was superimposed, the oblique line of the lowest modillion lying in awkward juxtaposition with the straight line below it. This modillion moulding is found on almost every church in Hassan Dagh, and I may here mention an invariable characteristic: the modillion is not the same width throughout; the lower part is splayed away so that it is only half the depth of the upper.

[1] Perrot and Chipiez, vol. ii., p. 234.

There are two other single-chambered churches on the slopes of Hassan Dagh; the lower is known as the Khan, the upper lies on a high shoulder called Boz Dagh; both are connected with small monastic establishments, and will be described in the section on monasteries. I will close the group, so far as I know it, with a church to the E. of Viran Sheher, lying on the edge of the mountain tarn of Sarigül. It is considerably larger than any of the others, and, unlike them, is provided with a narthex. A church of this size and importance would certainly, if it had been situated in the Kara Dagh, have been divided into a nave and aisles, but in Hassan Dagh, where the basilica is rarely used, the builders were content with the simpler plan (Fig. 265). Nothing but foundations remained of the S. wall and apse which had been destroyed by a great boulder that had rolled down from the mountain behind. The apse was polygonal outside but not horse-shoed inside and without the straight stilt. The W. wall of the narthex had been broken by a triple-arched entrance of which only one unkeyed arch was standing (Fig. 266). Both the double columns that supported the arches were in place, though one had lost its capital. Part of the barrel vault of the narthex remained. The narthex, as is generally the case in this district, seems to have been only one storey high; above it could be seen a single course of the W. wall of the nave, composed of stones so carefully dressed that they must have been intended for an outer wall. A door led into the long narrow nave; there was another door with an arched porch in the N. wall (Fig. 267). On the exterior of the S. wall were remains of three shallow buttresses. The masonry was excellent. The vaults of narthex and nave had been built with the utmost care, and both were horse-shoed (Fig. 268). The N. door was covered by a straight arch, the W. door had a lintel and jambs (Fig. 269 *a*) worked with a shallow grooved moulding and a couple of beads (the beads were not carried down the jambs), while above the lintel was a straight relieving arch (*cf.* Maden Sheher, Nos. 8 and 21). The N. porch was covered with a barrel vault. A moulding, consisting of a cavetto ending in a sharp angle that projected over the band below, ran along the top of the porch walls (Fig. 269 *b*; how sharp was

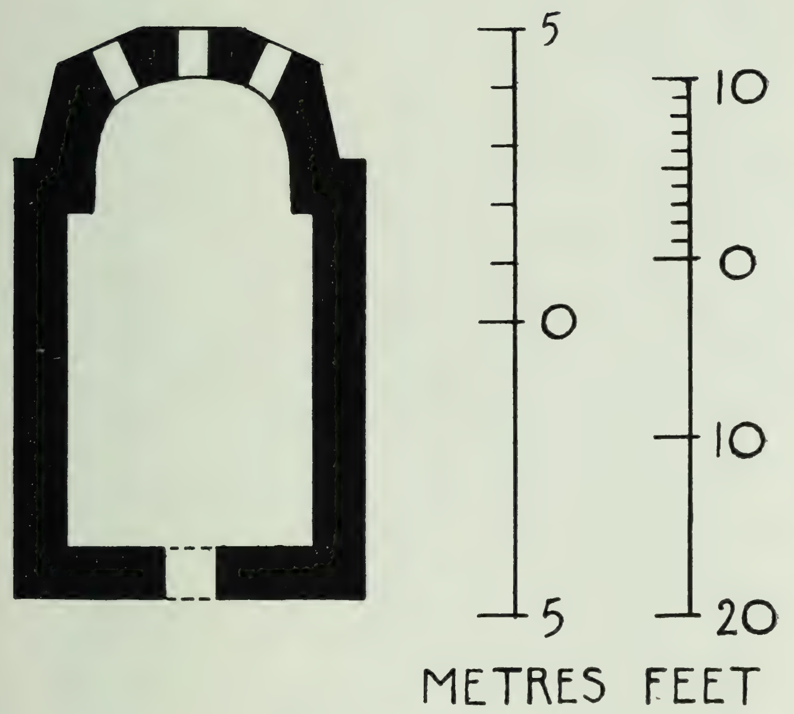


Fig. 260.—Ana Tepessi.



Fig. 261.—Ana Tepessi, W. façade.



Fig. 262.—Ana Tepessi, from S.-E.

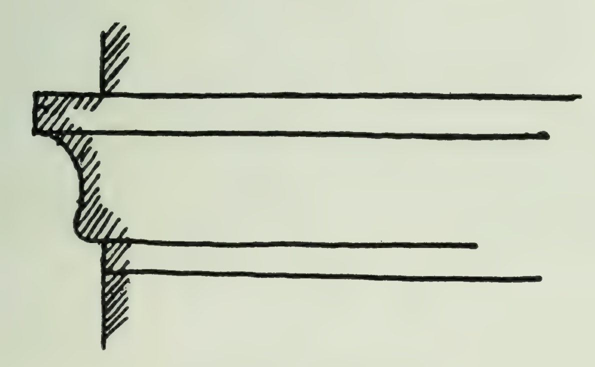


Fig. 263.—Ana Tepessi.



Fig. 264.—Ana Tepessi, detail of apse.

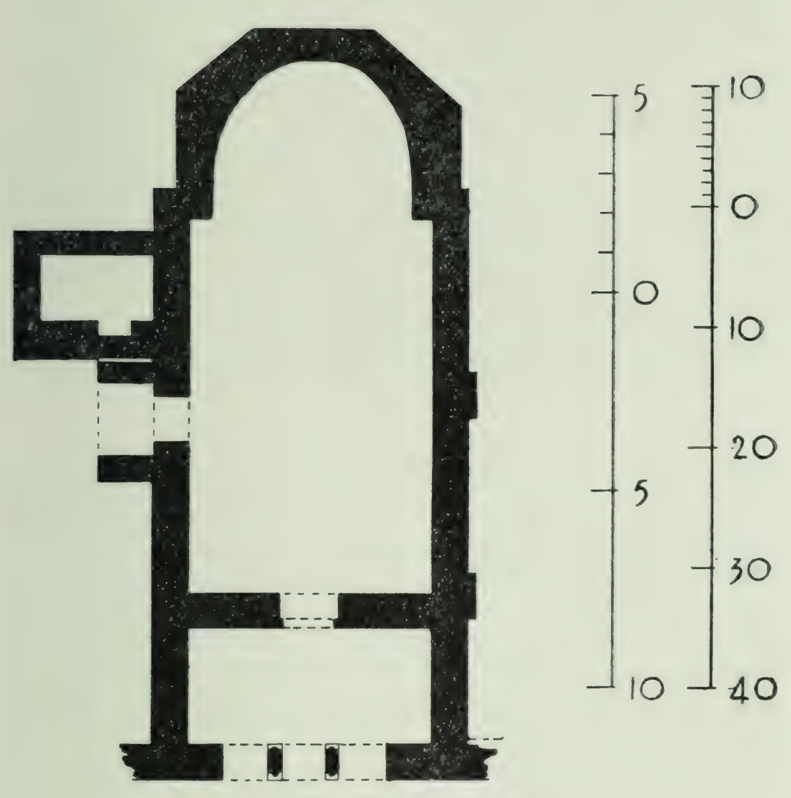


Fig. 265.—Sarigül.



Fig. 266.—Sarigül, W. façade.



Fig. 267.—Sarigül, N. door.

the lower angle of the cavetto can be seen in the fragment lying upon the roof of the porch in Fig. 267). I have little doubt that the ruined porches of the Kara Dagh basilicas must have resembled fairly closely the structure at Sarigül. The capital of the double column in the narthex was roughly blocked out (Fig. 270). The lines demarcating the double column were carried up into the lower part of the capital, and above this there was a cavetto; from the corner of the abacus fell at either end a projecting member like a fold, which took the curve of the cavetto and narrowed down to the half columns. E. of the porch, against the N. wall of the church, there was a small structure which I take to have been a cistern. It had no door; the interior was thickly coated with plaster and roofed over with a vault. There were traces of ruined buildings to the N. A wall, possibly an enclosing wall, ran out on either side of the W. wall of the narthex, but I could see only the first few stones of it—the rest was ruined and buried.

One point remains to be mentioned in connection with the group of buildings which has just been considered. I have already compared No. 36 with certain churches that are to be found in the S. of France; a glance at Dehio's plate 93 will make this comparison clear. The French builders did not venture to throw their barrel vaults as boldly from wall to wall as did the Asiatic; for the most part they used exterior buttresses as well as interior engaged piers, and strengthened the vault with ribs. The polygonal apse of the Anatolian churches reappears, and so too, in some cases, does the S. door. That the single-chambered church with strong Asiatic traits should be found on the same ground as the vaulted barn church lends weight to the probability that both were introduced from the East on the wave of the monastic tradition.[1]

[1] There are a number of small undivided chapels in N. Syria but they do not seem to have been vaulted. Frequently they are provided with a portico on the S. side, occupying the whole length of the nave, as at Nuriyeh, Rbe'ah, Kfer and Srir (Butler: Architecture and other Arts, pp. 92, 102, 149 and 151). In several cases they served as baptisteries to a larger church, as in two examples at Dar Kita (Butler: pp. 137 and 202). In N. Africa there are many instances of small memorial oratoriums (*cf.* Nos. 46, 47, and

3. The Cruciform

The history of the cruciform is even more obscure than that of the basilica. I believe that it is necessary to draw a distinction between two different types, the cross-shaped church and that form of plan which has been called the cross-in-square. The first is now known to be very largely represented in Central Asia Minor. It is found there chiefly in its simplest aspect, *i.e.*, without any additional side chambers or aisles to conceal the exterior shape of the cross. Such chambers may, however, be added without departing from the type, so long as they do not alter the structural conception. Thus the larger church on Mahaletch is no less clearly a member of this group because of the side chambers W. of the transepts; the small church at Aladja has the true cross-shape in spite of the fact that the cruciform outline was not apparent on the E. side,[1] and the same applies to the church at Ak Kale on the Cilician coast.[2] In all these cases the chambers have been

38) some of which were certainly vaulted, for example Tipasa, where there is a door to the S. as well as to the W., and Meshira (Mélanges d'archéol. et d'histoire, 1894, pp. 402 and 594). At Announa there is a chapel with a S. door but no W. door (Gsell: Les Monuments antiques de l'Algérie, ii., p. 169); at Guesseria a chapel which was probably a baptistery (*ibid.*, p. 203); and near Bin bir Zireg there is a much ruined church which may well be compared with No. 36 (Mélanges, 1894, p. 568). Engaged columns were ranged along the inner walls (supporting an arcade as in No. 36?), and it is noticeable that base, shaft, and capital were cut out of a single block of stone, like the double columns which are so common at Deghile. Among the Cretan churches published by Gerola (Monumenti Veneti nell' Isola di Creta) the single-chambered church roofed with a barrel vault is so frequent that Gerola states it to be the fundamental scheme of Cretan architecture (vol. ii., p. 196). A glance at the plans given by him will show how closely related are these buildings with the Anatolian series; sometimes the vault stands alone as on Maden Dagh, sometimes it is supported by interior buttresses and arches as in No. 36. A further development was reached in Crete by placing a dome in the nave (*op. cit.*, vol. ii., p. 198).

[1] Kleinasien, p. 139, from a sketch by Niemann. His plan was not, however, quite correct. Rott has recently republished the church, giving another form to the W. end, where the corner chambers appear to have been a later addition (Kleinasiatische Denkmäler, p. 318).

[2] Published by me in the Revue Archéol., 1906, vol. vii., p. 399. Through the kindness of Lady Wilson I have been able to see a plan made

Fig. 268.—Sarigül, interior of nave, N. side.

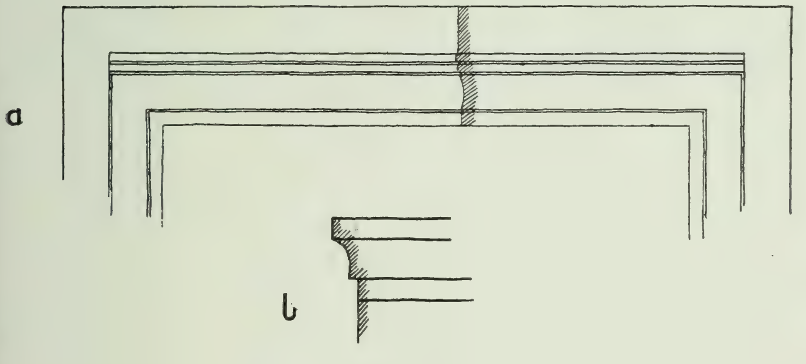


Fig. 269.—Sarigül.



Fig. 270.—Sarigül, narthex column.

added without changing the structural motive (a central dome with radiating barrel vaults), and if they had never been erected the cross-shaped edifice would not have suffered from their absence; indeed at Ak Kale, though they have all fallen, the essential parts of the building remain standing. In contradistinction to this type is the cross-in-square which reached its final development in the Comnenian church. Millet has described as follows the difference in principle that separates the two:—

"La véritable église en forme de croix, telle que le mausolée de Galla Placidia, ne comporte pas de bas côtés, ou bien les bas côtés viennent *de l'extérieur* garnir les coins vides entre les bras de la croix et leur restent extérieurs. C'est le cas à Aladscha Kislé, en Georgie, au Protaton de Karyès—et aussi a Scripou. Au contraire, l'église byzantine à croix grecque les exige comme un ressort essentiel de son équilibre, pour transmettre aux murs extérieurs les poussées de la coupole et dresser la coupole, non pas sur des murs, non plus même sur de forts piliers, mais sur de simples colonnes."[1] In other words, the angle chambers are here not a mere addition to the ground plan, they have a structural function. In the cross-shaped church the thrust of the central dome is taken by the strong walls that inscribe the cross, in the cross-in-square it is distributed by the collaterals over the whole edifice, and the walls of the cross, being no longer needed, fall away and are replaced by transverse arches carried on piers or even on slender columns. The second type is strongly centralised, each part being subordinated to the structural needs of the whole; the first, when side chambers are added, is not truly centralised, the parts can almost be regarded as separate members adding but little to the general stability.[2]

by the late Sir Charles Wilson, in which the apse is shown. It had disappeared when I visited the site.

[1] Revue Archéol., 1905, vol. v., p. 106. The paragraph contains one more sentence: "Ces bas côtés, elle les a retenus de son prototype, la basilique à coupole". I have omitted this sentence because I doubt whether it is applicable to the cross-in-square church of the Anatolian plateau. It is open to question whether that church has any connection with the domed basilica. See below, p. 427.

[2] No. 9 shows how independent even the central dome can be of the support afforded by the vaulted arms of the cross, for these have all fallen,

The cross-shaped church is no doubt the older scheme. Dehio and Bezold sought for its origin in round or square domed buildings provided with four niches, one corresponding to each of the main axes of the chamber.[1] Strzygowski has pointed out that in such buildings the central chamber would always have played the chief part, and that the niche-like character of the side arms must have been in some measure retained; nor could symbolism account for the creation of an artistic scheme, though it might determine the adoption of one which already existed. He suggested that the cross-shaped church was memorial in intention and that its prototype was the cross-shaped catacomb of the Hellenistic East where "the arms of the cross are the same width as the central chamber, their length varies with the number of graves they were intended to contain, while the nature of the roof that covered the central chamber was without significance, for the type was not originally connected with the domed building".[2] Sidon, Palmyra and Alexandria have furnished examples of subterranean funeral chambers disposed in this manner.[3] When, however, the subterranean mausoleum was translated into terms of architecture the problem of the roof at once assumed importance. A solution like that which was applied at

but the dome still stands. This is probably due to the fact that it is corbelled, not set on pendentives, which would have exercised a greater thrust. The same is true of the dome at Sivri Hissar, where the collateral vaults have fallen. It is set on squinches, a form not so strong perhaps as the corbel, but stronger than the pendentive. The heavy tower-like structure which encloses these domes would in itself have quite sufficient weight to keep them in place and render them independent of the collateral vaults. Millet has pointed out that the true Asiatic method of setting the dome on to the square is the corbel or the squinch (p. 101 of the article cited above). He quotes a curious account, given by Constantine the Rhodian, of the building of Justinian's great cross-shaped church at Constantinople from which it is clear that the five domes, one over each of the arms and one over the intersections of the cross, were regarded as separate units which were ultimately linked together by pairs of arches and barrel vaults (p. 105).

[1] *Op. cit.*, vol. i., p. 43.

[2] Orient oder Rom., p. 20. The argument has been well and briefly put by Friedenthal: Das kreuzförmige Oktogon, p. 7.

[3] Strzygowski: Kleinasien, p. 135.

Amathonte in Cyprus, where each member of the cross was treated as a separate chamber and covered with a separate roof,[1] would not be admissible if the edifice were regarded as a structural whole; the natural expedient was the dome which has been found in Syria and Asia Minor on buildings immediately preceding the Christian,[2] and on the Persian frontier probably at about the same period, for example in the palaces of Firuzabad and Sarvistan.

The cross-shaped plan and the central dome were therefore ready to the hand of the Christian builders; it is abundantly clear that they were not slow to avail themselves of a scheme which lent itself so obviously to a symbolic interpretation. The symbolic significance of the victorious cross is insisted upon in the dedicatory inscription of the church of the Apostles founded by St. Ambrose at Milan in 382;[3] a few years later the Empress Eudoxia commanded Bishop Porphyrius to erect in the form of a cross the church at Gaza which was to replace the Marnion.[4] St. Gregory of Nyssa, writing about 380, describes a memorial cross-shaped octagon, the chambers of which were to be arranged "as is customary in the cross-shaped plan".[5] The tomb of Galla Placidia at Ravenna preserves in the fifth century the cross-shaped memorial type, and the church over the Sichem Well, of which Adamnanus gave a sketch plan, was in the form of a Greek cross.[6] Strzygowski is of opinion that

[1] Perrot and Chipiez, vol. iii., p. 219.

[2] Kusr en Nueidjis (Survey of Eastern Palestine, vol. iii., p. 219): Djerash (Choisy: L'Art de bâtir chez les B., p. 88), Sardis, Philadelphia, Magnesia on the Maeander (Choisy, *ibid.*, p. 90). Strzygowski has observed (Kleinasien, p. 136) that in a tomb at Termessos published by Benndorf and Niemann the dome is foreshadowed, though the roof actually employed is a barrel vault. Kusr en Nueidjis is closely related to the Aladja-Ak Kale group; it is impossible not to suspect a direct architectural connection between the pre-Christian tomb and the Christian memorial chapel.

[3] Kleinasien, p. 137. Dehio and Bezold, vol. i., p. 44.

[4] Kleinasien, p. 137, and Friedenthal, *op. cit.*, p. 9.

[5] Kleinasien, p. 72, and Friedenthal, p. 36.

[6] Graf: Repertorium für Kunstwissenschaft, vol. xvii., p. 137. I doubt whether the distinction between the crux immissa and the crux commissa (the **+**-shape and the **T**-shape) was as clearly felt as Graf would have us believe. The **T**-shaped cross is the plan employed all over Asia Minor

Constantine selected a cross-shaped plan for his church of the Apostles at Constantinople, thereby lending to the type the imperishable lustre that clings to all his famous monuments and at the same time stamping it with a peculiarly memorial character, but the argument cannot be pressed owing to the conflicting nature of the evidence with regard to Constantine's foundation.[1] The church erected by Justinian on the same site was however undoubtedly cross-shaped. The exploration of Central Asia Minor discloses the fact that the cross-shaped plan, in one form or another, was used so frequently that it may almost be regarded as typically Anatolian. The further the traveller advances into the interior of the country, the more common does it become, until in the province of Cappadocia it may be said to drive all others from the field.[2]

Several of the examples in the Kara Dagh have already been described by Crowfoot and Smirnov (Nos. 8, 9, 11 and 12. No. 8 is a combination of cruciform and octagon and will be dealt

almost to the exclusion of the other; was it not this form of memorial church, so prevalent on the plateau at an early date, that Gregory of Nyssa had in his mind when he spoke of the cruciform as being of common occurrence?

[1] See Théodore Reinach's article in the Revue des Etudes Grecques for 1896. In the Patria, Constantine's church is described as a basilica (δρομιχή), whereas St. Gregory of Nazianzos speaks of it as having the shape of a Greek cross. Friedenthal (*op. cit.*, p. 11) dismisses Th. Reinach's argument in favour of the basilical form, and holds to Strzygowski's theory, but Heisenberg, whose valuable book, Grabeskirche und Apostelkirche, is the latest authority on the subject, has pronounced Constantine's church to have been a basilica. He bases his opinion on a careful study of all literary sources together with the analogy supplied by the yet earlier foundation at Jerusalem which he has himself done so much to elucidate. Nothing but excavation on the site at Constantinople—of which there is no prospect—could determine the point at issue. The cross-shaped church must have been known in Constantinople in the fourth century, whether Constantine adopted it or no. Eudoxia's letter to Porphyrius leaves no room for doubt on that head. Moreover, though Constantine's Church of the Apostles was probably a basilica, there is good reason to believe that the mausoleum itself was cross-shaped.

[2] See Rott's Kleinasiatische Denkmäler for the eastern parts of Cappadocia. The basilica is almost non-existent there.

with later). I found a T-shaped cruciform upon every hill-top in the mountain, and one in Deghile (No. 37). These buildings vary very slightly in form. The small chapel on Mahaletch and No. 12 approach most nearly to a perfect Greek cross ; to these may be added No. 44, which differs from them in its elaborate niching, both within and without, in having small apses in the E. wall of the transepts and in the rectangular space which is laid before the main apse. It is the sole instance in the Kara Dagh of the crux immissa. No. 37 and Tchet Dagh (the smaller of the two churches on that hill) have had the interior shape of the Greek cross but both were provided with a porch-like prolongation which must, I think, have been vaulted over ; there is some reason for believing that a grave was placed here. No. 11, the largest of the group, and Kizil Dagh are the true T-shaped Latin cross ; both have had subsidiary chambers, in the first case beyond the S.-W. angle of the church (the chamber W. of the S. transept is probably a later addition), in the second W. of the S. transept and projecting beyond it. The large church on Mahaletch has chambers W. of the transepts, a narthex and an exo-narthex.[1] No. 9 is also a T-shaped Latin cross, but the transepts are rounded off so as to form a trifoliate apse.[2] In every case, except No. 11,

[1] For the side chambers, see the church at Yatagan in Isauria (Kleinasien, p. 55). Also a church at Cherson in the Crimea (Dubois de Montpéreux : Atlas iii., pl. 4, and Ainalov : Pamjatniki Christiankago Chersonesa, part i., Moscow, 1905, where numerous examples of cross-shaped churches in the Crimea are given). They occur also in the Caucasus (Materialy po archeologii Kavkaza, parts ii. and iii., Moscow, 1893-94) generally with side chambers and not infrequently in connection with a basilica. The cross-shape with side chambers is found at Constantinople, Atik Mustafa Djami (Pulgher, pl. xiv.), but the cross-in-square is the rule both there and in Greece (Lampakis : Mémoires sur les antiquités chrétiennes de la Grèce).

[2] The literature on the trifoliate apse is considerable. See Kraus, i., p. 262, for the cellae trichorae of the catacombs ; Lange, p. 307 ; Witting, p. 82, for an African example converted into a basilica ; de Bock : Matériaux pour servir à l'Archéologie de l'Egypte chrétienne, pp. 49 and 62, for the trifoliate apsed basilicas of Upper Egypt. Fyfe has recently published an interesting church of this type, St. Titus of Gortyna in Crete (Architectural Review, August, 1907, p. 60. See, too, Gerola : Monumenti Veneti nell' Isola di Creta, vol. ii., p. 31 . Strzygowski deals with the trifoliate throne-

these buildings are connected with monasteries; generally they are small chapels with a larger church near them, but on Kizil Dagh the chapel stands alone with a monastic foundation immediately below it. The desire of the builders seems to have been to crown the highest points of the hills with a monastery containing a cruciform church or chapel. Very frequently in Syria, and not unusually in the coast lands of Asia Minor, small chapels attached to larger churches have been recognised as baptisteries. Von Schneider pronounced the cruciform at Aladja to be a baptistery, and said that a square font occupied the centre of the building; [1] Crowfoot hazarded the suggestion that No. 9 might be a baptistery connected with No. 6,[2] but Strzygowski regarded it as a memorial chapel.[3] I do not believe the baptistery theory to be tenable with regard to any of the cross-shaped churches of the Kara Dagh. In the first place, they are found unconnected with a larger church. In the second place, their position on the highest summits of the hills is ill-suited to a baptistery though it would accord well with a memorial chapel. The Kara Dagh is not the only mountain range in

rooms of palaces in his Mschatta, p. 233. The palace of Kasr ibn Wardan is another remarkable example of trifoliate plan (Butler: Ancient Architecture in Syria, section B, part 1). Guyer (Denkmäler, p. 88) doubts whether the Bethlehem church belongs to the same group as the Egyptian examples, and believes the Oriental palace hall to have been the prototype of the trifoliate apse of the great monastic basilicas, a form which was carried to Europe with other motives of monastic art. I confess I do not see my way clearly between this throne-room type with a basilical hall attached to it, and the small cellae trichorae to which No. 9 undoubtedly belongs, and it is difficult to understand why the throne-room of a palace should have been adopted for churches which, large and small, are generally agreed to have possessed a memorial character. Guyer observes that the selection was "mehr zufällig". For the present it is sufficient to deduce the following conclusions from the works above cited: (*a*) the trifoliate apse appears in the palace building of Asia probably as early as the time of Solomon; (*b*) churches of the type of No. 9 are essentially memorial, *i.e.*, the trifoliate apse is Asiatic and memorial.

[1] Kleinasien, p. 139. Rott has disproved this statement and pronounced in favour of the memorial character of the building. Kleinasiatische Denkmäler, p. 320.

[2] Kleinasien, p. 14. [3] *Ibid.*, p. 26.

Asia Minor of which the peaks have been thus consecrated. A cross-shaped chapel of a peculiar form occupies the summit of Hassan Dagh ; a church of exactly the same type as that which is found on the Kara Dagh hill-tops stands above Kilisra, on the highest point of Ali Summassi Dagh,[1] and another, Kurshundju, on the central peak of the Karadja Dagh. These last two are monastic ; the Hassan Dagh chapel is so far above sea level (9,000 feet in round figures) that even the ascetics of Anatolia could scarcely have contemplated spending their days there. In the third place, the memorial intention of the Kara Dagh churches is marked in two cases by inscriptions (No. 37 and Mahaletch ; a sarcophagus lies in front of No. 11 and the curious chamber to the N.-E. of No. 44 is very possibly a grave). The multiplication of small shrines both in Greece and in N. Africa has been noticed by many writers. Witting is inclined to attribute it in N. Africa to the growing demands of congregations that were ever increasing in numbers ; [2] Perdrizet suggests that the multiplication of small churches in Greece is a trait inherited from antique polytheism, Christian saints taking the place of pagan gods.[3] The latter explanation is supported by the evidence supplied by Asia Minor as well as by the whole history of the martyr cult, which is itself of Eastern origin.[4] Those who have seen the shrines of the Hauran, where the prophets of the Old Testament are venerated among surroundings that bear the hall-mark of pagan Arabia, will realise how easily the very site of the pagan sanctuary can be taken over by the later creed. Mahaletch with its Hittite High Place is perhaps the *locus classicus* for such adaptation in Asia Minor. The mountain top, which in the East was ever an object of awe, is reconsecrated by the martyrium. The

[1] Guyer visited this church a year before I was there, but I did not know this till I saw an allusion to the building in his Denkmäler (p. 7).

[2] *Op. cit.*, p. 76.

[3] Bull. de Corr. Hell., 1907, p. 20.

[4] Anniversary feasts in honour of martyrs are known to have been celebrated in Asia as early as the latter half of the second century, but are not recorded in Rome till a century later (Wulff, *op. cit.*, p. 92). Bishop Asterios of Amaseia, who died in 410, praises the beauty and number of the tombs and churches built in honour of martyrs (Garucci, i., p. 467).

accepted form for such martyriums in Central Asia Minor is the cross-shaped church.[1]

I have already had occasion to mention cross-shaped churches outside the Kara Dagh; it is necessary to analyse those that have not yet been published, beginning with the two which offer the closest parallel to the Kara Dagh group. The church of Hayyat on Ali Summassi Dagh is part of a complex of monastic buildings (Fig. 271). It is protected to the E. and S. by a wall some two metres thick; to the N. and W. the steepness of the rocks makes it difficult of access. There is a doorway in the S.-E. angle of the wall and another small door a little further to the N. The church stands close to the E. wall. A deep narthex, much ruined, lies before the nave; in the thickness of the S. wall there is an arched niche (an arcosolium?); this part of the wall shows signs of having suffered repair (Fig. 272). The nave was lighted by two V-shaped windows on either side, and the same windows reappear in the N. transept. The S. transept is ruined below window-level, but the heavy undecorated jambs of a door could be seen at the southern end. The apse was horse-shoed within, and I think slightly horse-shoed without, an unusual feature; it had been lighted by a window of two lights separated by a double column which, no doubt, supported arches. A moulding ran round the interior of the church above the windows (Fig. 273) composed of a number of insignificant members giving a rather indefinite effect. The lintel of the door between narthex and nave was lying among the ruins (Fig. 274). It was decorated with a heavy, badly cut torus (*cf.* No. 10). The masonry was good, the stones large and well faced both within and without. Round the exterior of the apse below the windows ran a course

[1] Guyer observes (*op. cit.*, p. 7) that this form occurs in the early Christian architecture of Europe only where Oriental influence was predominant, in Ravenna (Galla Placidia), and in two centres of Gallic cultivation, Romainmôtier (Zeitschrift für Geschichte der Architektur, 1907, p. 89) and Ingelheim (Dehio, pl. 42). Strzygowski has called attention to the small cruciform churches in Sicily published by P. Orsi (Byz. Zeit., 1898, p. 1). The plan of the church situated at S. Croce, Camerina, resembles closely the chapel in No. 44, while the masonry is not unlike No. 16. With S. Croce Strzygowski compares the church at Roccella di Squillace (Kleinasien, p. 222).

5 0 5 10 METRES

10 0 10 20 30 40 FEET

Fig. 271.—Hayyat.



Fig. 272.—Hayyat, niche in narthex.



Fig. 273.—Hayyat, interior of nave, showing string-course.



Fig. 274.—Hayyat, lintel of door between narthex and nave.

of narrower stones which may have projected slightly from the face of the wall (Fig. 275); this would correspond with the system adopted at Nos. 1 and 31 and Mahaletch, but at Hayyat the apse is so much ruined that the projection may be due merely to displacement. A few metres to the W. of the church there is a small square building facing due E. and W., but not apsed. It had a door to the W.; in the centre of each of the other three walls a fallen double column indicated a pair of arched windows. Below the windows ran the same moulding that is found in the interior of the church, below the moulding a plain course of large stones, below this the face of the wall was yet further decorated by a band of the shallow concave moulding so familiar in the Kara Dagh. Still farther W. there was another small rectangular building more ruined than the first; here too the door was to the W. Torrents of rain and bitter cold prevented me from making further notes on this site; I do not think that it contained any other church or chapel.

Nor is there more than one church in the great hill-top monastery of the Karadja Dagh, Kurshundju; the practice of setting a small memorial chapel side by side with the larger church is confined, so far as my observation goes, to the Kara Dagh. At Kurshundju the church and monastic buildings were surrounded by an enclosing wall broken on the W. side by a point of rock which was included, according to ancient Anatolian methods, in the line of defence (Fig. 276).[1] On the lower ground to the E. there were a few extremely dilapidated buildings, oblong chambers of a very rude masonry, the stones unsquared and laid dry. They may have been store-houses or cattle-sheds, or possibly they provided a shelter for pilgrims. The monastery was entered by an important gateway in the E. wall (Fig. 277) leading into a court with a vaulted cistern in the centre. The church occupied the N.-E. angle of the enclosure. It was without a narthex (*cf.* No. 11, a church of about the same dimensions). The door at the W. end of the nave opened into a

[1] See Sir William Ramsay's account of the walls of the Midas City (Journal of the Hell. Soc., 1888, p. 376).

narrow oblong chamber, a door in the S. wall of this chamber led into another small room which in turn communicated with a third lying to the W. The three formed a block of buildings almost square. The N. wall (*i.e.*, the wall of the monastic enclosure) was prolonged to the W., and turned S. and E. and again S. till it joined the rock. The oblong area thus enclosed to the W. of the three chambers was not, I think, a room, but an open space inside the angle of the outer wall. A door in the S. wall of the nave led into a fourth chamber W. of the S. transept. It communicated with the court by a door in the S.-W. corner, and with a fifth chamber by a door in the S. wall. The fifth chamber could also be approached from the church by a door in the S. transept, and from the court by a small door in the S. wall and a large double doorway in the W. wall. A double column had supported the arches of this doorway; it was still in place but much weathered; I detected traces of spiral flutings on the half columns. The keystones of the two arches were lying among the ruins, one decorated with a wreath, the other with a series of tiny Latin crosses so arranged as to form a larger cross. E. of this chamber, between it and the enclosing wall, was another small room which communicated only with the court. There were three double columns lying among the ruins here; it would be impossible to determine whence they had fallen without clearing out the débris. All these rooms without exception had been added to the church after the latter was built; at the point where they touched the church there was invariably a double wall, that is to say the wall of the room had been built up against the wall of the church. The buildings to the W. were exceedingly poor in masonry and construction; the buildings to the S. were of a different type, made up of older materials and showing a considerable variety in the mouldings.

South of the main gateway there was a hall opening outside the enclosure by a door in the E. wall, and into the court, through some small completely ruined rooms, by a door in the W. wall. This hall was divided from E. to W. by two arcades, the northern composed of two oblong piers and two very deep engaged piers, the southern of similar engaged piers, com-



Fig. 275.—Hayyat, exterior of apse.



FIG. 277.—Kurshunlu, gateway of monastery from E.

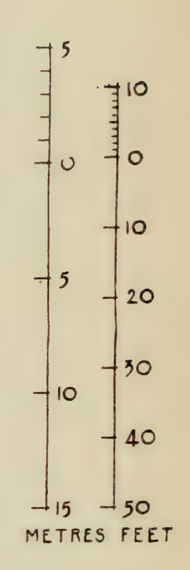
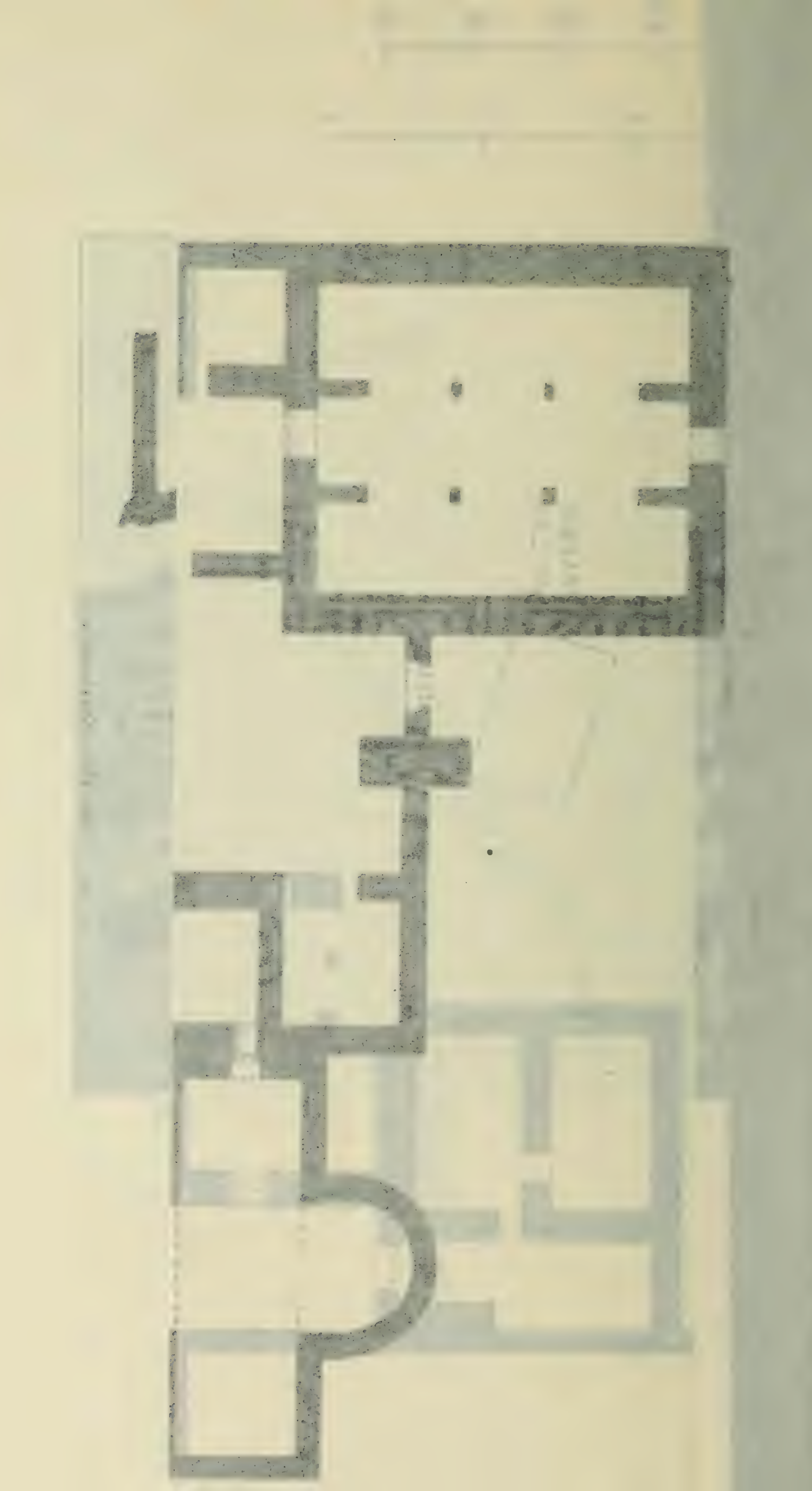


Fig. 276.—Kurshundju.



bined with two double columns. The masonry was rough and poor, the walls remarkably thick.

The church was the usual T-shaped cruciform. The apse had a peculiarity which is found in almost every apse in Hassan Dagh. It began on either side with a piece of straight wall, lying before the stilted curve of the ground plan, caused by the engaged piers that carried the apse arch. The characteristic set of these apses becomes more apparent when the curve is horse-shoed (as in Kara Kisle, Viran Sheher, mentioned above), and there it has an obvious utility, namely to dispense with the sharp and easily broken corners that result from the return of the straight walls combined with the horse-shoe curve, but even with a plan not horse-shoed it is immediately recognisable and cannot be mistaken for the ordinary stilted ground plan. The barrel vaults sprang from a moulded string-course that ran uninterruptedly round the interior (Fig. 278). The masonry was exceedingly good, composed of large oblong blocks very well fitted together, especially in the vaults. The inner side of the walls was faced as carefully as the outer; I saw no trace of plaster. Between the outer and inner faced stones there was mortar and a little rubble; the stones were the same width all through, not wedged as they are in the Kara Dagh, but they varied a little in depth. The technic of the vaulting is also different from that of the Kara Dagh, the stones used being much larger and better finished. (The same work is found in all the Hassan Dagh vaults: there is scarcely an example of rough cement and rubble work such as that of Maden Dagh.) The doorways have no jambs. Over the S. door the lintel is standing and above it a second lintel exactly the same shape as the first, forming a kind of straight relieving arch (Fig. 279). The string-course consists of a cyma and a filleted band (Fig. 280 *a*); the lower curve of the cyma is not pendulous but more torus-shaped. At the four interior corners of the cruciform the string-course is interrupted by engaged capitals. They are much weathered, but it is evident that they were decorated with acanthus leaves worked partly with the chisel and partly with the drill (Fig. 281); in the centre of each side is a round disc, the surface of which has peeled off completely. In the

chamber W. of the S. transept I saw a fragment of cyma moulding with a remarkably heavy band as the upper member (Fig. 280 *b*; *cf.* the string-course inside Mahaletch). Inside the next chamber farther to the S. there are fragments of a string-course (Fig. 280 *c*) on the N. wall. It is composed of a cavetto under a band; the cavetto is decorated with shallow flutings, and the moulding is finished off, where it comes to an end against the door, with an upright branch bearing four pointed leaves. Another fragment of moulding showed a pattern divided into rectangular fields filled alternately with a palmette and a shallow arcade of two arches. The S. wall of this chamber is a patchwork of re-used stones, among them many fragments of mouldings. Fig. 282 shows the exterior of the wall at its eastern end. The lowest course is a plain projecting plinth; upon it lies a moulded stone (a notched band, a splay face and two bands) which must have belonged to a string-course but is here used upside down. (It reappears on the N. wall of the gate where it is placed the right way up.) There follows a large block finely dressed; the eastern outer face of the enclosing wall of the monastery is built of similar large, well-finished blocks. Upon it rests two blocks of a string-course, an upright cyma under a notched band. (This has not the same profile as the string-course on the interior of the church; the lower curve is there much more important. It resembles more closely the cyma mouldings found on the outside of apses in the Kara Dagh). In the next course the corner block is worked with an interesting decoration of which the principal feature is a band of upright crested triangles, a variety of the wave motive that occurs with great frequency on late Roman and Christian mosaic pavements in N. Africa (for an example see the pavement at Tebessa[1]) and also in Etruscan work (vases, sarcophagi, etc.). There is a very beautiful example of it from the Tholos in the museum at Epidaurus. The same motive occurs on a great number of the mosaic pavements discovered at Delos.[2] To the left of this block is a stone worked with a cyma.

The monastic buildings as a whole appear to be a later

[1] Ballu: Le Monastère de Tébessa, pl. 5.

[2] Monuments Piot, vol. 14.



Fig 278.—Kurshundju, N. transept.

Fig. 279.—Kurshundju, interior of nave, showing S. door.

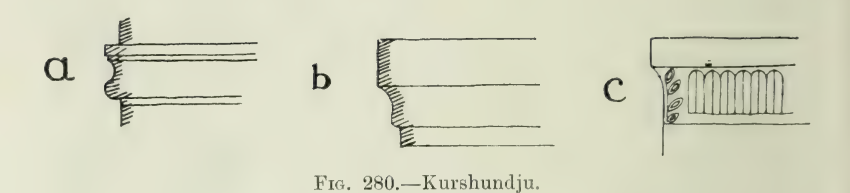


Fig. 280.—Kurshundju.

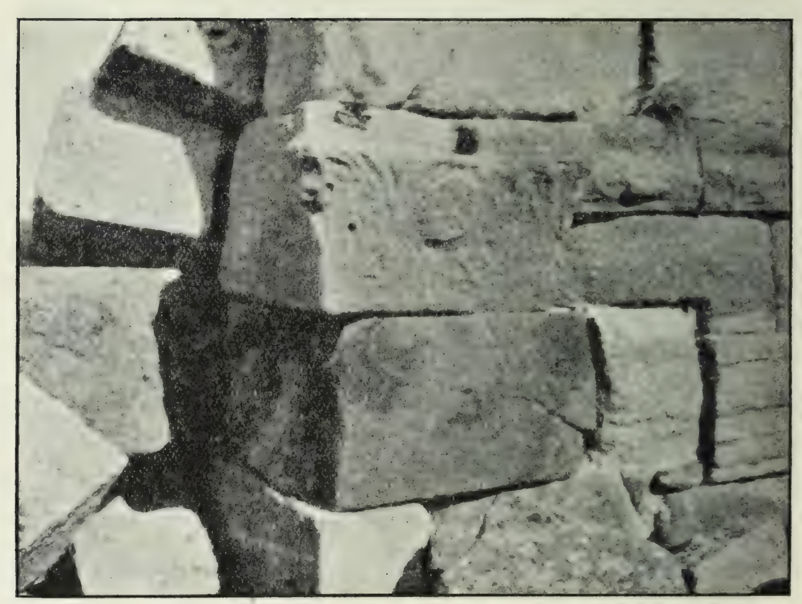


Fig. 281.—Kurshundju, carved stone at S. angle of apse.



Fig. 282.—Kurshundju, monastery wall built of re-used stones.

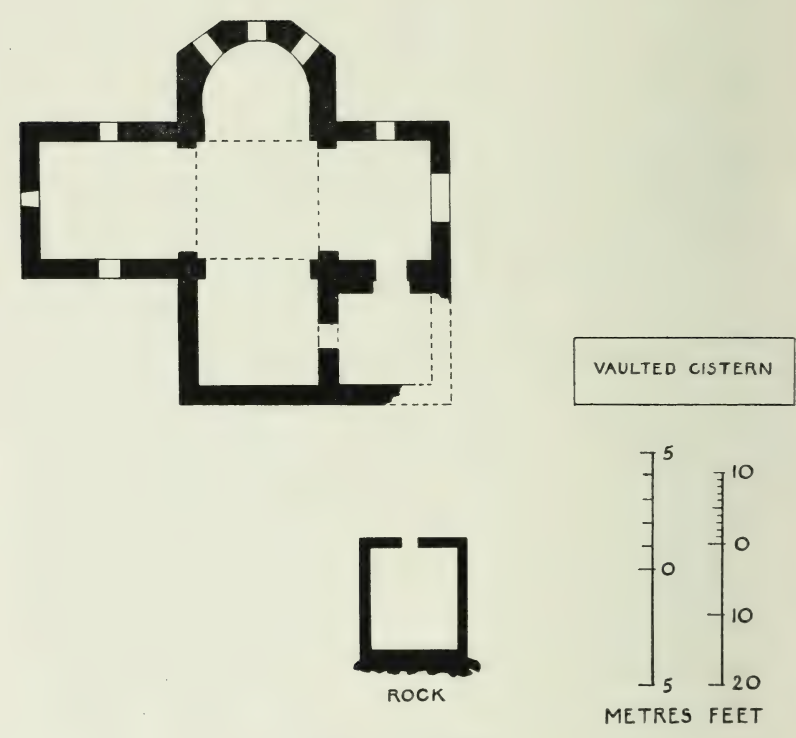


Fig. 283.—Viran Sheher 1.

accretion, but the eastern part of the enclosing wall together with the gateway are certainly part of the older work, to which the church itself probably belongs. The masonry of the wall and gate is of stones laid dry and bonded together by great blocks extending through the width of the wall (Fig. 277). The whole site demands study and excavation.[1]

At Viran Sheher in Hassan Dagh, a little to the N. of the single-chambered church already described, there is a church not unlike No. 11 in ground plan (Fig. 283). The transepts are somewhat wider and shorter (the S. transept is shorter by a metre than the N.), the nave is shorter, the apse is deeper, with the stilted horse-shoe in the interior and the polygonal mantle on the exterior which are typical of Hassan Dagh; there is no door at the W. end of the nave. The nave and transepts had been roofed with horse-shoed barrel vaults, the intersection of the cross must have been covered by a dome set on corbels or squinches (Fig. 284); two of the horse-shoe arches that had supported it were standing, two had fallen. There were two doors, one in the S. wall of the nave, the second in the W. wall of the S. transept (Fig. 285); both had led into a chamber, now completely ruined, occupying the angle between transept and nave. The apse had been lighted by three arched, unkeyed windows with a modillion moulding running round them (Fig. 286), the modillions more skilfully managed than at Ana Tepessi. There was a small window in the E. wall of the S. transept, and a large opening, probably a window of two lights, in the S. wall. The N. transept was lighted by three small arched windows. The masonry was typical of Viran Sheher. Considerable care had been taken with the important parts of the church, the piers and arches and the exterior of the

[1] The German Vice-Consul, Dr. Löytved, showed me traces of a very large cross-shaped church at Konia, which he believes to have been the church in St. George. The site is used as a quarry, and a small Seljuk mosque stands upon the W. end of the nave. It would perhaps still be possible to recover the ground plan by careful excavation. It would be interesting to compare this church with the great cross-shaped church of St. Menas built by Arcadius in the desert of Mareotis (Kaufmann: Ausgrabung der Menas-Heiligtümer, Zweiter Bericht, Fig. 8).

apse; the outer walls had been built of large stones fairly well dressed but not laid in even courses. On the other hand, the work in the interior of the walls was exceptionally rough, the stones small and perfunctorily dressed and squared. Fig. 287, the interior of a window in the N. transept, gives a good idea of its quality. The mouldings were poor and were found only on the engaged capitals of the piers. A cavetto above two bands lay below the apse arch (Fig. 288 *a*), a cavetto with one band below the other three arches (Fig. 288 *b*). In both cases the cavetto was shallow and projected with a sharp edge over the band. The lintels were undecorated and the doors had no jambs. S. of the church was a very large vaulted cistern; to the W. there was a vaulted chamber set back into the hill (Fig. 289). The masonry here was much better than in the church; the barrel vault was horse-shoed and built of carefully cut stones. I noticed many similar chambers scattered about the town: they were perhaps mausoleums.[1]

Three other types of the cross-shape exist in Hassan Dagh. The first is represented by two churches and has marked affinities with No. 44. The best preserved of the two lies on a low spur called Yaghdebash (Fig. 290). The nave was short and the transepts shallow with apse-like niches to the E.; before the main apse lay the same oblong chamber as in No. 44, the apse was horse-shoed within and polygonal without; before the W. door there had been some kind of porch or narthex (Fig. 291. My plan is probably not correct here; the masonry of the W. wall is not faced till above the arch of the door, showing that there must have been a low narthex, but the building was so much ruined that it was impossible to determine the exact nature of the narthex). The door was covered with a horse-shoe arch; high up in the wall above there had been a lancet window. In the angle W. of the S. transept there was a small chamber; I do not know where the door into it was placed. Probably there had been a similar chamber W. of the N. transept (Fig. 292, where the mark of the vault that covered

[1] This church has now been published by Rott: Kleinasiatische Denkmäler, p. 266. I let my description stand, as it is rather more detailed than his.



Fig. 284.—Viran Sheher 1, interior, looking towards apse.



Fig. 285.—Viran Sheher 1, from S.-W.



FIG. 286.—Viran Sheher 1, detail of apse exterior.

FIG. 287.—Viran Sheher 1, interior of window in N. transept.

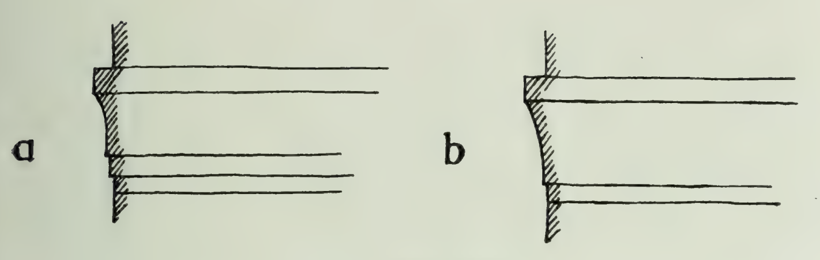


FIG. 288.—Viran Sheher 1.

FIG. 289.—Viran Sheher 1, chamber W. of church.

Fig. 290.—Yaghdebash.

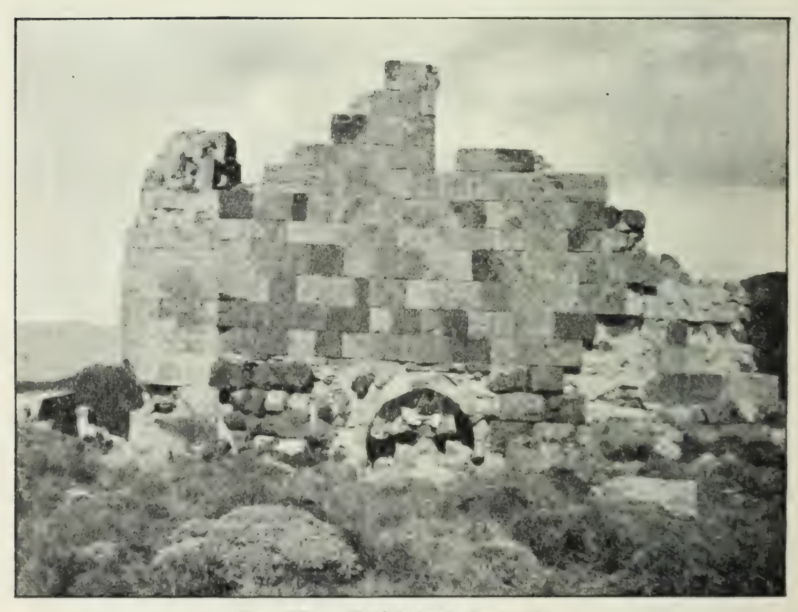


Fig. 291.—Yaghdebash, from W.

it can be seen on the two walls) N. of the church was a long chamber, one storey high, with a niche and a door in the N. wall. Above the roof of this chamber in the N. wall of the church, were two highly decorated blind arched niches. The easternmost of these was constructed of two concentric rows of voussoirs, the upper carved with a vine stalk bearing alternate leaves and bunches of fruit, the lower with an interlaced motive of three double strands plaited together (Fig. 293). In the tympanum there was a disk filled with a whorl of narrow petals; half palmettes springing from the disk occupied the lower corners. Above the niche, a little to the E. of the centre, there was a small disk filled with an entrelac; touching the arch of the niche on the W. side was another small disk in which was carved in relief a rabbit. The drill had been largely used in all this work. The W. niche (Fig. 294) was unfortunately much ruined. Both bands of voussoirs had borne an inscription, the lower letters being larger than the upper. A big arched window, doubly recessed, occupied the upper part of the N. wall. The exterior of the apse had also been decorated with niches. Only one of the faces of the polygon was standing, the first on the S. side (Fig. 295). It bore a lancet-shaped niche doubly recessed, the inner arch cut out of a single block of stone. The second, third, and fourth faces of the apse had probably been occupied by windows, the fifth by a blind niche corresponding to the first. The masonry was of small wedged stones with a quantity of mortar and rubble between the inner and outer faces. The stones were of two tones and produced a certain colouristic effect. Several worked fragments were lying among the ruins, the patterns on them being unlike any I have seen elsewhere; among others was a moulded band cut in alternate mallet heads (Fig. 296 *a*), a motive familiar on Turkish and Chinese rugs. To the W. of the church was a series of rooms opening out of the chamber under the N. wall and communicating with each other by doors sometimes arched and sometimes covered with a lintel. They were of the rudest workmanship and had been roofed with very rough corbelled domes. In spite of the primitive character of the masonry there can be no question but that they belonged to the Chris-

tian period. Graffiti crosses were cut in the walls (Fig. 296 *b*). Another detached room of a similar type lay to the S. of the church.

This plan presents very striking resemblances with that of the oldest of the churches on Mount Athos.[1] The Protaton of Karyes was enlarged in the tenth century; the date of its foundation is unknown. It is unlike any other church in Mount Athos, and most unlike in this: that it has no dome. The differences in the two plans, that of the Protaton and of Yaghdebash, are such as would not improbably arise from different local traditions. In Hassan Dagh the side chambers on either side of the main apse are absent (they are always absent in Central Anatolia) and the presbyterium assumes the form customary in the district; the western angle chambers were more completely separated from the cross-shaped church, the narthex was either suppressed altogether or reduced to a low porch-like structure along the W. façade. The impression produced by a comparison of the two plans is that they were derived not from each other, but from a common prototype which was modified in accordance with local needs. The carved niches of Yaghdebash, so different from anything that is to be found on the Anatolian plateau, bear a singular likeness to the carved niches of Coptic architecture.[2]

Another church of the same type lies half-way up Hassan Dagh among the ruins of a monastery called Süt Kilisse (Fig. 297). The place is watered all through the summer from the melting snows, and is used as a yaila, hence its name: the Milk Church. There were two churches on this site, but they were much ruined and buried in earth and grass. The W. wall seemed to be continuous between the two. The N. church belongs to the group of single-chambered churches, already described, with the addition of a small chapel built against the N. wall having an apse in the thickness of the wall. In the S. wall there was a door opening into a narrow passage between the two churches. The S. church was cross-shaped and resembled Yaghdebash; the W. end was too much ruined to

[1] Brockhaus: Die Kunst in den Athos-Klöstern, p. 23.

[2] Strzygowski: Catalogue du Musée du Caire, pp. 38 and 44.

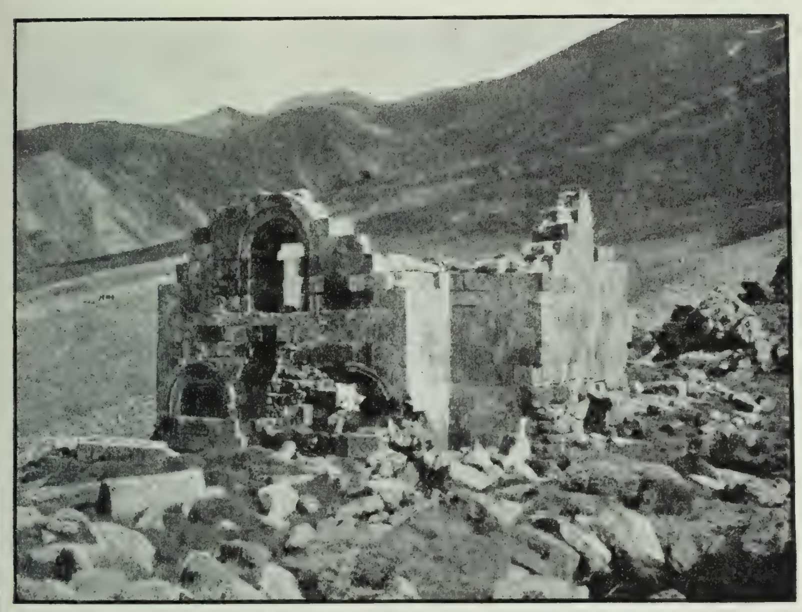


Fig. 292.—Yaghdebash, from N.-W.



Fig. 293.—Yaghdebash, E. niche in N. wall.

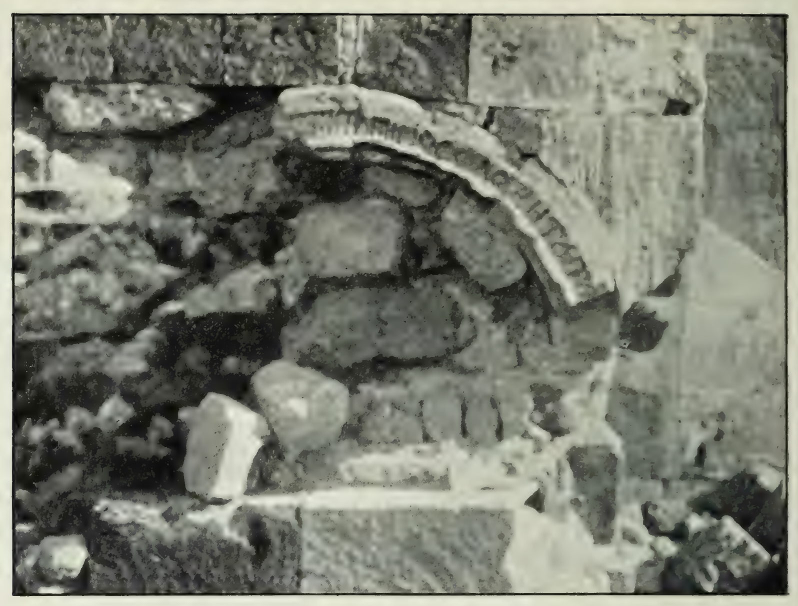


FIG. 294.—Yaghdebash, W. niche in N. wall.

FIG. 295.—Yaghdebash, apse outside.

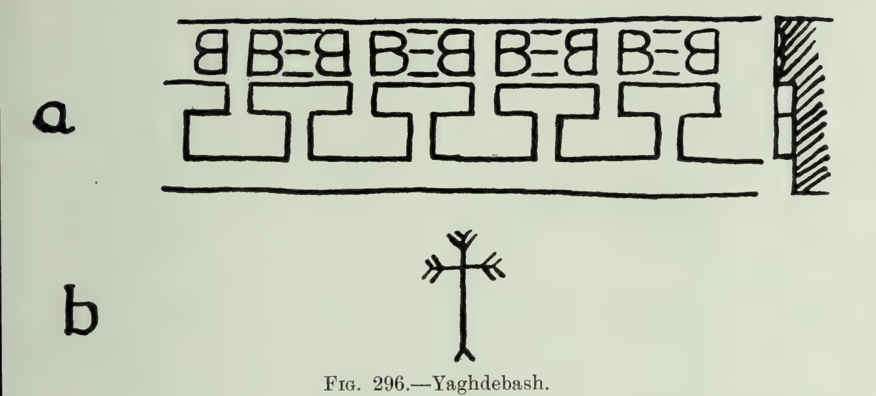


Fig. 296.—Yaghdebash.

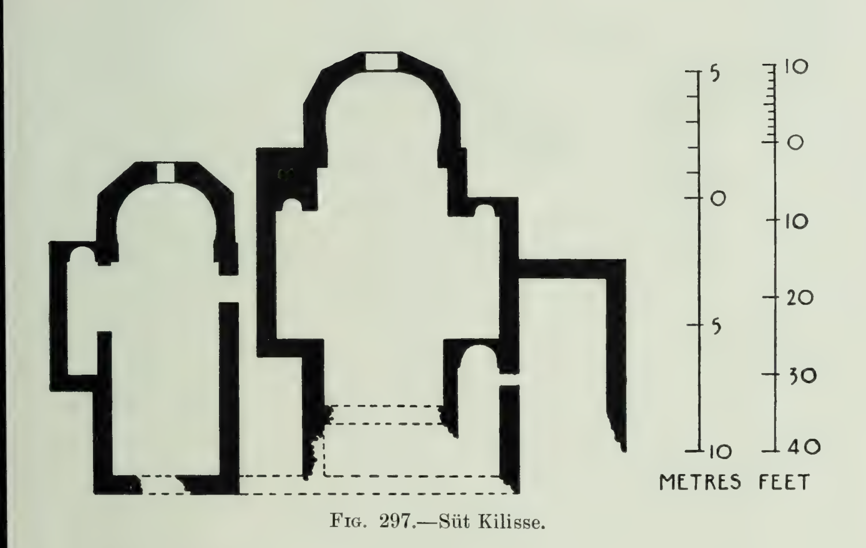


Fig. 297.—Süt Kilisse.

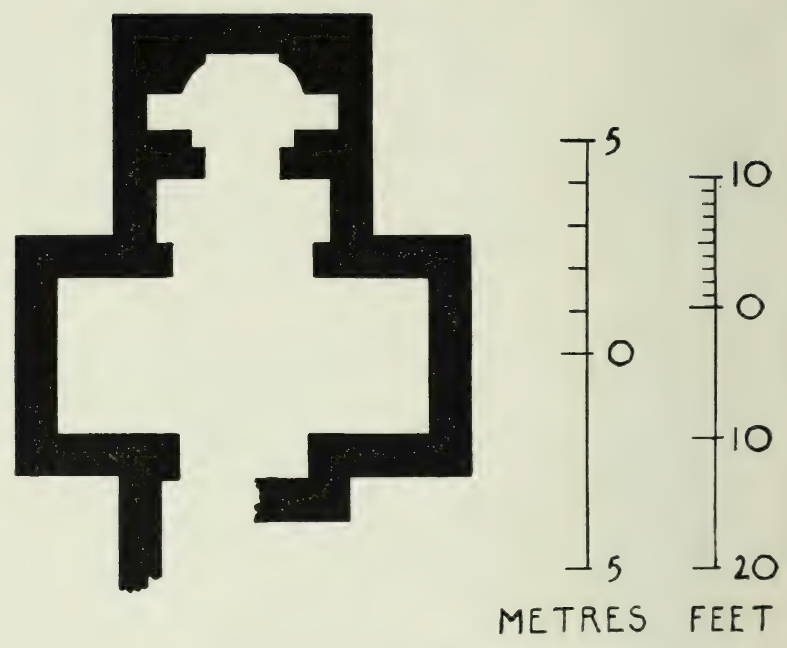


Fig. 298.—Summit, Hassan Dagh.

determine the exact nature of the two chambers W. of the transepts; the southern one was apsed, and had a door into a ruined building still further to the S. The main apse was polygonal outside, stilted and horse-shoed inside with an oblong space in front of it as at Yaghdebash. The monastic buildings were quite ruined and overgrown.

Were these two churches, Yaghdebash and Süt Kilisse, roofed with a dome? The Protaton is domeless, the sole exception to the rule in Mount Athos. (The original roofing of the Protaton was a barrel vault, according to the Russian traveller Barsky, who saw it in the eighteenth century.) It is possible that in the two churches of Hassan Dagh we may also have exceptions to the universal rule, but the question is one which could only be resolved by careful study on the spot.

The second type of cross-shaped church in Hassan Dagh is represented by one example which is so much ruined that without excavation it is not possible to give more than an approximate plan (Fig. 298). The church lies on the very summit of the mountain, which is a place of pilgrimage visited once a year by the Mohammedans of the surrounding districts, and sanctified by a Moslem tomb. I do not doubt that the tomb preserves a very ancient tradition of holiness, probably more ancient than the Christian church which was the predecessor of the Moslem shrine; but I looked in vain for Hittite inscriptions; the rocks of the high mountain top were so much shattered by frost and weathered by melting snows that the memorials of the earliest worshippers here, if they ever existed, must long ago have been destroyed.

The most remarkable feature of the church is the shape of the presbyterium. Two small rectangular chambers, separated by engaged piers, lay before an apse of which the curve was interrupted by a shallow rectangular niche. The E. wall was straight, not curved, upon the outside, with these exceptions it is not unlikely that the church closely resembled Yaghdebash in plan. There was a moulding in the rectangular niche of the apse (Fig. 299 *a*) consisting of a bevelled fillet and a cavetto of which the lower angle projected over two narrow fillets. Along the inside of the transept wall ran a cyma moulding (Fig. 299 *b*).

The third type of cross-shaped church exists in two important examples, at Sivri Hissar and at Tchukurken; it is the cross-shaped church with a N. aisle. Sivri Hissar is a village close to Gelvere, the ancient Karbala in the territory of Nazianzos. The hereditary property of Gregory Nazianzen lay near Gelvere, and the village is still largely Christian and contains traditions and relics of the saint, together with a church dedicated to him.[1] The church at Sivri Hissar is exceptionally well preserved (Fig. 300). The outer walls and the dome stand, but most of the barrel vaults have fallen in (Fig. 301). The narthex also has disappeared; it cannot have been more than one storey high as is indicated by holes in the W. wall of the church which must have been intended to receive the beams of the roof (Fig. 302). Foundations of the N. and S. walls remain. A narthex of this kind is very common in the Hassan Dagh district, Smirnov's church at Andaval is another example of the same type.[2] A door led into the nave and another into the solitary aisle. Both doors have heavy lintels decorated only with a cross in a medallion; above the middle of these is a short relieving stone, measuring about one-third of the length of the lintel, and so shaped as to leave a narrow open space above the centre of the lintel (*cf.* Kurshundju). The black line of shadow made by this open space is to be seen on the outside of the church in Fig. 302, and in the inside in Fig. 303. In the gable above the larger door there is a horse-shoe arched window. The aisle has from the outside the appearance of a lean-to, the sloping line of the roof joining the wall of the nave a little below the level of the end of the gable; in reality it was roofed with a barrel vault, the S. end of which started higher up than the N. end, thus helping to lift and support the sloping

[1] Ramsay: Historical Geography of Asia Minor, p. 285. Rott believes Sivri Hissar to be Arianzos, the name by which St. Gregory's estate was known (Zeitschrift für Geschichte der Architektur, 1908, vi., p. 164). Rott has published the church in his Kleinasiatische Denkmäler, p. 276. His plan is not quite correct; the straight stilt in the interior of the apse is omitted.

[2] Kleinasien, p. 66. Replanned and published by Rott: Kleinasiatische Denk., p. 104. I visited it this year (1909).

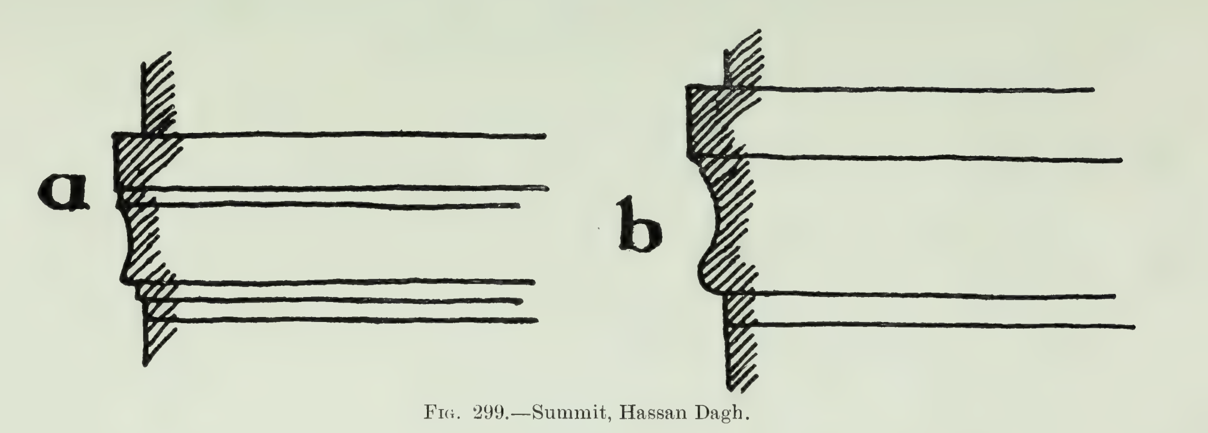


Fig. 299.—Summit, Hassan Dagh.

5 0 5 10
METRES

10 0 10 20 30
FEET

Fig. 300.—Sivri Hissar.



Fig. 301.—Sivri Hissar, from S.-E.



Fig. 302.—Sivri Hissar, from W.



Fig. 303.—Sivri Hissar, interior of nave, looking W.

roof (Fig. 304). The projection of the N. transept was not visible from the W. except in the upper part of the church where the high gable, corresponding to the similar gable of the S. transept, marked clearly the cross shape which is partly concealed by the aisle in the ground plan (Fig. 305). The dome was supported by four arches resting on a large cross-shaped masonry pier and engaged piers ; the nave was divided from the aisle by an arcade of three horse-shoed arches resting on two double columns (Fig. 306). There are two horse-shoe arched windows in the S. wall of the nave, and four in each of the transepts, one being placed high up in the gable. The S. transept could be entered by a doorway in the W. wall. There was no sign that any of the doorways had been filled by doors. The apse was raised above the rest of the church by a step, which is still in place, and lighted by three windows (Fig. 307). In plan it was a stilted horse-shoe inside and polygonal outside. There were small rectangular niches or shelves in the wall on either side, W. of the windows. Above the four arches, at the intersection of the cross, the walls were carried up a course and a half and topped by a moulded and slightly projecting string-course that ran all round the interior of the square (Fig. 308). Above the string-course the square passed into an octagon by means of squinch arches. The four alternate faces of the octagon were broken by horse-shoed windows, while above the squinches themselves were small square openings (visible in Fig. 305). The round calotte was set on to the octagon immediately above the window arches, partly by means of a corbel stone over the angles, partly by carrying the masonry back behind the faces of the octagon walls. Outside, as inside, the square tower was carried up to the level of the windows and finished with a moulded cornice. The octagonal tower was set upon the square in such a manner that the N., S., E. and W. faces stood just within the corresponding faces of the wall below (room had to be left for the moulding that passed along below the windows) and the spaces at the corners of the square were filled up by the outer curve of the squinch arches. On either side of the four large windows were pilasters, the central part flat with the wall, the top and bottom worked with moulded capitals and bases

projecting from the wall. This treatment was applied also to the upper windows in the transept gables. The cornice moulding below the windows reappeared on the octagon, this time with the addition of modillions. The same cornice was used all round the church (Figs. 309 and 310). The masonry of the exterior was in every respect admirable; the interior had been completely covered with plaster and fresco, and the walls here were of small stones left comparatively rough. The barrel vaults of nave and transepts were very slightly horse-shoed. The barrel vaults and the semi-dome of the apse must all have been covered with an exterior roof, probably of tiles. The tiled pointed roof that covered the central dome is still in place. S. of the church there was a spring of good water. There are heaps of featureless ruins all round.

I have no doubt that the church at Tchukurken [1] was after the same pattern as the one just described. It was a little larger, and the N. transept projected slightly beyond the line of the aisle, while the apse was rounded, not polygonal, outside (Fig. 311). It is much more ruined, and what remains has been converted into cattle-sheds. The dome fell comparatively recently; an old villager remembered seeing it and told me it had been very high. The main difference between Tchukurken and Sivri Hissar is that in the former the aisle was the same height as the nave (Fig. 312), the two being roofed with parallel barrel vaults after the manner of a barn church. This necessarily altered the aspect of the façade. There was a window above the N. door. The window over the door into the nave was of two lights divided by a double column. It was decorated with a band of modillions forming a sill, and another round the arches (Fig. 313). The great height and fine workmanship of the aisle vault (the vault of the nave has fallen) is very striking

[1] This is the place called by Sir William Ramsay Kara-ang-Kapu. The latter village lies a little to the E. of Tchukurken at the foot of Hassan Dagh, and is, as Sir William says, a miserable place without water (His. Geog., p. 340), whereas Tchukurken is a large village with a fine spring, and the ruins of five important churches besides the one here described. It lies immediately below the fortress which Sir William believes to be the Byzantine Argos.

Fig. 304.—Sivri Hissar, N. aisle looking E., showing vault.



Fig. 305.—Sivri Hissar, from N.-E.



Fig. 306.—Sivri Hissar, arcade between nave and aisle.

Fig. 307.—Sivri Hissar, interior of apse.



Fig. 308.—Sivri Hissar, N. transept and dome over centre of church.

Fig. 309.—Sivri Hissar, detail of cornice, S.-W. angle of nave.

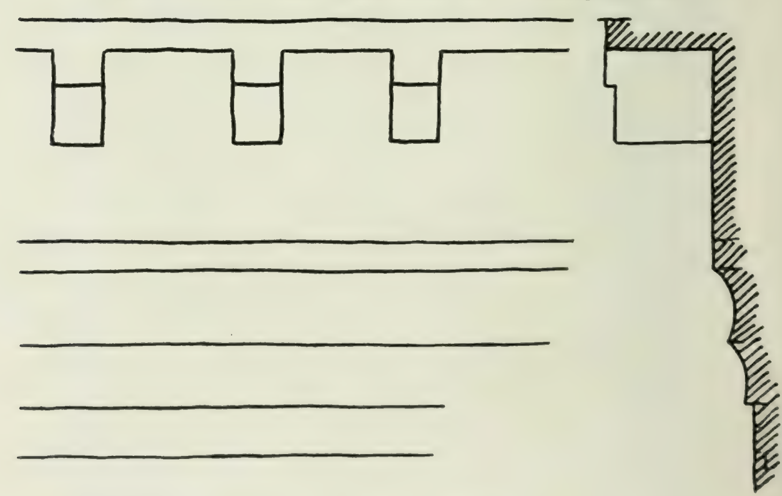


Fig. 310.—Sivri Hissar.

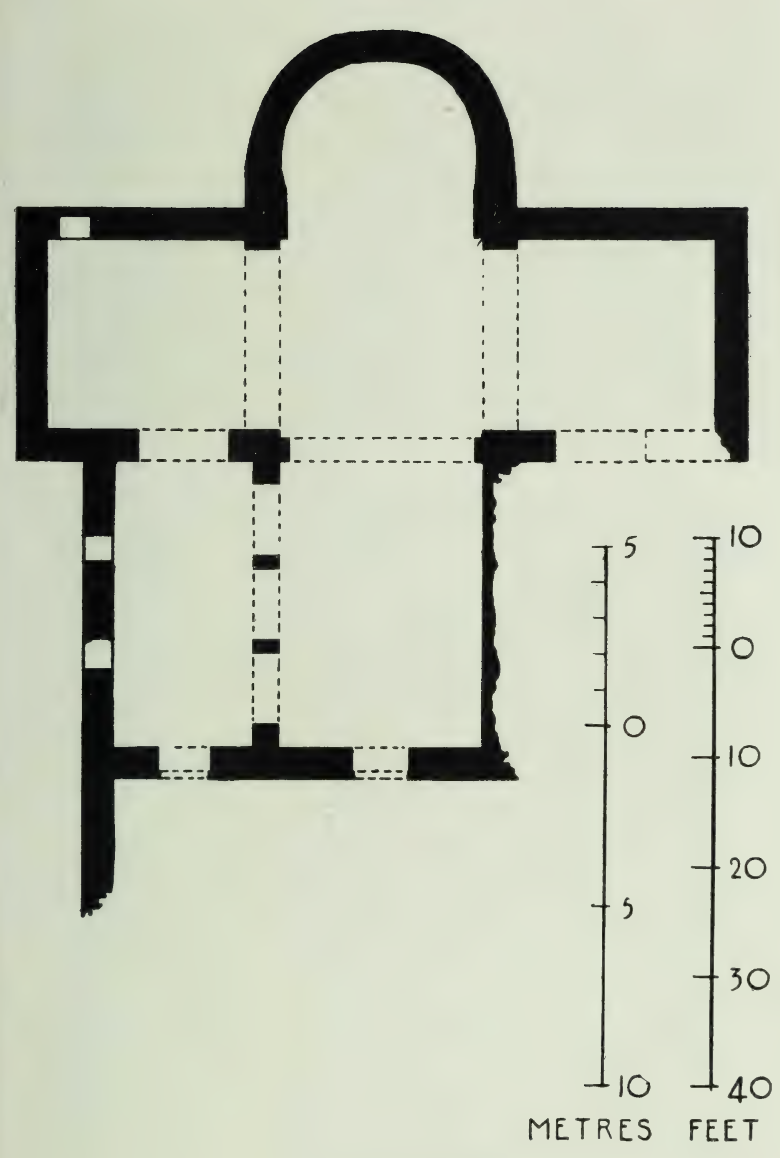


Fig. 311.—Tchukurken.



Fig. 312.—Tchukurken, from W.

Fig. 313.—Tchukurken, detail of W. façade.

(Fig. 314). The vault is horse-shoed and so are all the arches. The aisle is divided from the nave by double columns as at Sivri Hissar. The S. wall of the nave has fallen and been rebuilt; it forms part of a house that has been built against the S. side of the church. The N. aisle opened into the N. transept by a wide doorway, now blocked. The lower part of the transepts and apse has been turned into a cow-byre, but the splendid masonry of the church is visible above the mud roof of the byre (Fig. 315, which shows the arch over the aisle door and the beginning of the transept vault). The exterior curve of the apse can still be seen in the E. wall of the byre. There was a moulding below the spring of the dome arches (Fig. 316 *a*); it was finely cut, and consisted of a cavetto and bands. The double columns of the nave were crowned with capitals distantly resembling the Ionic (Fig. 316 *b*).

The curious single aisle is not confined to domed cross-shaped churches; there is one instance where it appears without dome or transepts. This is a small church high up on the W. side of Hassan Dagh above a yaila called Tchauderlik (Fig. 317). The yaila is used by the people of Karadj Euren, a village at the foot of the mountain (Kiepert marks Karghyn, which must be my Karadj Euren). Round Tchauderlik church there were ruins, walls of uncut stones laid dry and the remains of a few chambers. Probably there had been a small monastery. The entrance to the church was a door placed not quite in the middle of the W. wall of the narthex. From the narthex a door led into the nave and another into the aisle. A third door in the S. wall led into a ruined chamber. An arcade of two arches divided the nave from the aisle: it was carried on an oblong masonry pier and two engaged piers (Fig. 318). The arches were not horse-shoed. The apse was stilted and horse-shoed inside and polygonal outside (Fig. 319). There was a small square niche on the N. side and a window in the centre. The aisle had been lighted by a window in the E. wall; part of the barrel vault was standing (Fig. 320). The characteristic modillion appeared on the W. door of the narthex, where it was combined with some deep mouldings and with the cusp motive that exists on two lintels in No. 33 (Fig. 321 *a*). There were three medallions

with crosses, one on the lintel and one on each of the jambs (*cf.* the jambs of a doorway of No. 44). On the W. door of the nave the lintel alone was worked; it had the cusp motive, but this time below the moulding (Fig. 321 *b*). The door from the narthex into the S. chamber had the same mouldings, but down the jambs, instead of modillions, there was a band of zigzags. The medallion re-appeared on the capital of the pier (Fig. 321 *c*). There was a cyma moulding round the apse beneath the spring of the semi-dome. All the inside of the church had been plastered.

I noticed both in Gelvere and in the village of Sivri Hissar a number of rock-cut churches with the same curious feature of a single aisle, and felt certain that the arrangement could not be fortuitous but must be regarded as a further exemplification of a type which in this district was well known. I give a plan of one of these rock-cut churches (Fig. 322), Hagios Ephthemios in a valley close to Gelvere. Local tradition asserts that it was made by a certain Hagios Simeon in the year 690. A band of horse-shoe niches decorates the exterior (Fig. 323). Rott, who travelled in Cappadocia the year before I was there, was equally struck by the prevalence of rock-cut double churches. He has recently published an example of these from Soanlydere, which illustrates the system better than any I saw near Gelvere. He states in the Zeitschrift für Geschichte der Architektur, that in the Soanlydere church as well as in a built church at Till, which he compares with Sivri Hissar, graves are placed in rows along the aisle, and concludes that the double church is the memorial church of Cappadocia, Üch Ayak being the perfect example in built churches, and Sivri Hissar a modification of the double plan. But in his Kleinasiatische Denkmäler he makes no mention of graves at Soanlydere, and notes that the graves at Till are *outside* the church.[1] I do not think that his conjecture concerning the Cappadocian memorial type can be accepted without further proof. The ordinary cross-shaped type seems to be constant in the Kaisarieh district which he visited.

[1] Zeit. f. Gesch. d. Architek., 1908, 6, and also in Kleinasiatische Denkmäler, pp. 128 and 287.



Fig. 314.—Tchukurken, from N.

Fig. 315.—Tchukurken, W. wall of N. transept, showing top of door into N. aisle.

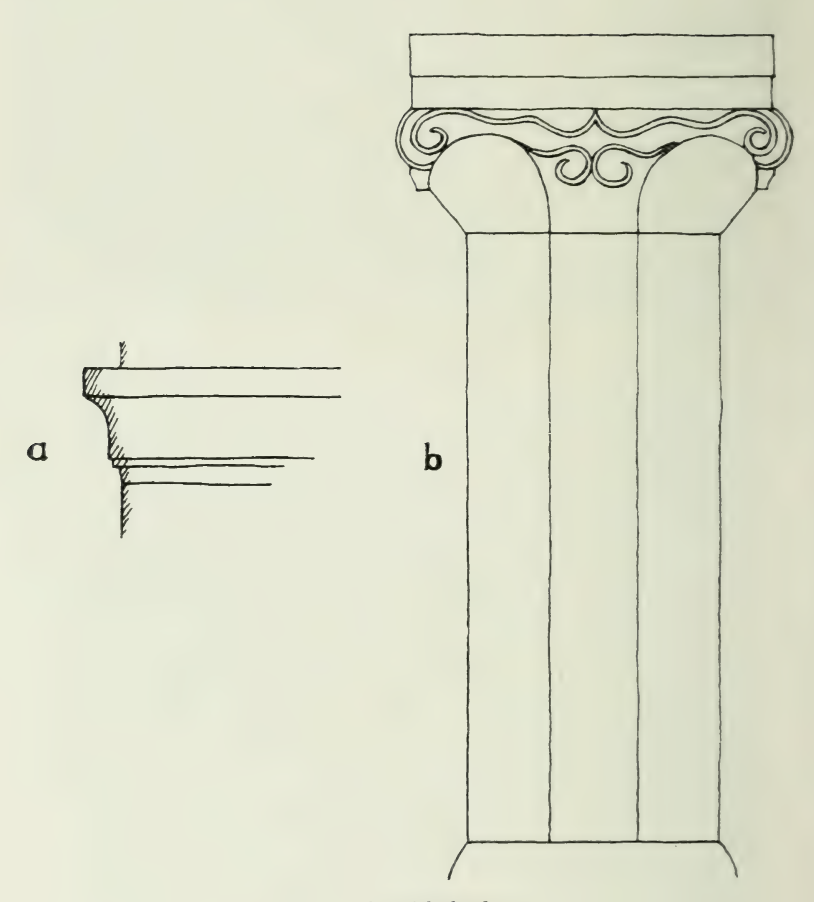


Fig. 316.—Tchukurken.

5 0 5 10
METRES

10 0 10 20 30 40
FEET

Fig. 317.—Tchauderlik.



Fig. 318.—Tchauderlik, arcade between nave and N. aisle.



Fig. 319.—Tchauderlik, interior of apse, from S.-W.

Fig. 320.—Tchauderlik, N. aisle, looking W.

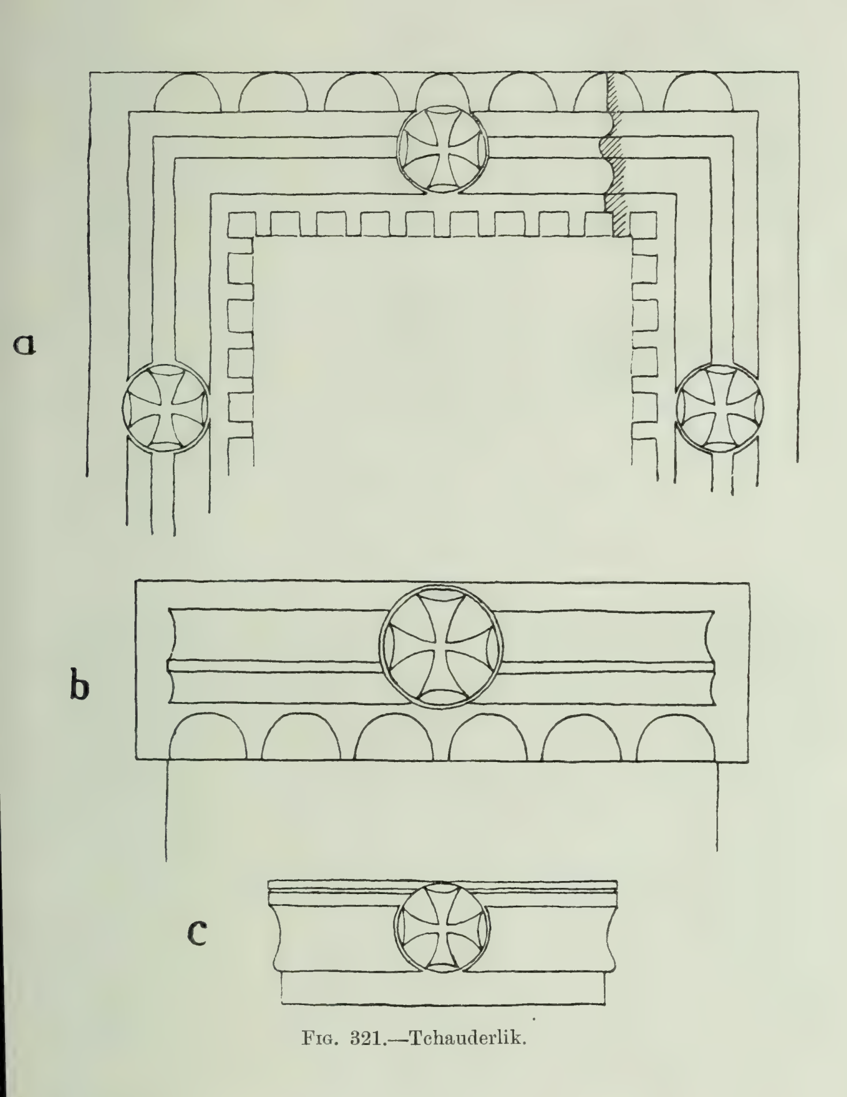


Fig. 321.—Tchauderlik.

5
0
10
10
0
10
20
METRES FEET

Fig. 322.—Hagios Ephthemios.

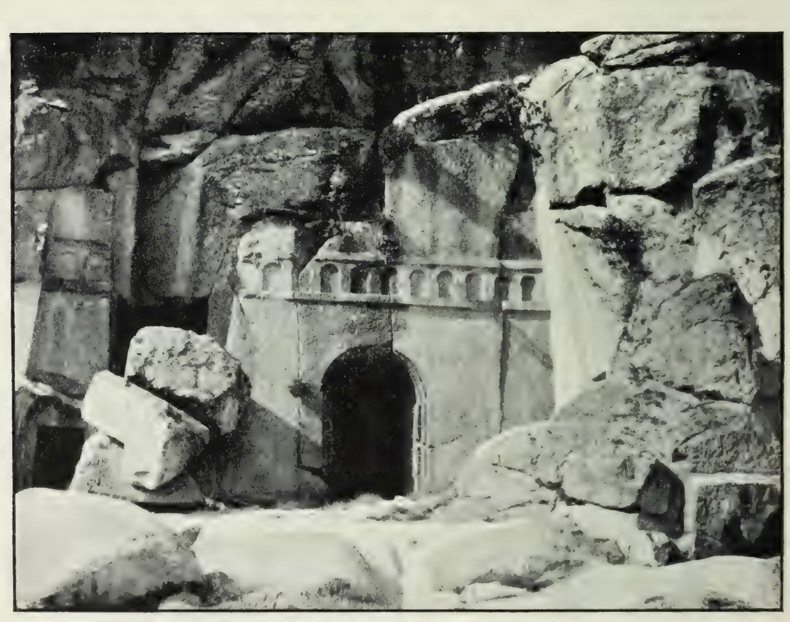


Fig. 323.—Gelvere, Hagios Ephthemios.

The second great group into which I have divided cruciform churches, the cross-in-square, is represented in the Kara Dagh by two examples, Tchet Dagh and No. 35. In neither case is any part of the roof standing; the following reasons lead me however to believe that they were vaulted and domed :—

With regard to the dome:—

(*a*) The size and strength of the masonry piers.

(*b*) The example of similar churches such as Fisandün and Tchangli Klisse.

With regard to the vault :—

(*a*) The mass of ruins which fill the interior of the two churches.

(*b*) The fact that a wooden roof is in all other cases unknown in the Kara Dagh.

The most conclusive evidence is supplied by another building in Deghile, No. 39. It is a cross-in-square, without an apse; remains of vault and dome can still be seen.

It would be of great assistance to have exact information concerning the roofing of the aisles at Fisandün. I have not myself seen the church, and Smirnov did not mention the matter in the notes with which he supplied Strzygowski.[1]

Tchet Dagh and No. 35 differ in several other respects from the usual Kara Dagh type; the masonry is of smaller materials, the outer wall surfaces are broken by shallow niches, and in No. 35 there is a decorative scheme carried out in tiles. All these peculiarities recur in Nos. 43 and 44, and nowhere else.

The structural scheme of the cross-in-square must have been early understood. Millet has pointed out that in the great vaulted buildings of Rome, such as the baths of Caracalla and the basilica of Maxentius, it is only necessary to substitute the dome on pendentives for the intersecting barrel vault in order to arrive at the cross-in-square.[2] These Roman examples may well have been copied, as Strzygowski has suggested, from great baths at Alexandria, Antioch or Ephesus, but unfortunately none of the Oriental prototypes are standing. There is, however,

[1] Kleinasien, p. 154. I follow Sir W. Ramsay's spelling.

[2] Rev. Archéol., Jan., 1905, p. 105.

one building of the pre-Christian period which foreshadows clearly the cross-in-square church; it is the Praetorium at Musmieh.[1] The rectangular central area is covered by a four-sided dome (Klosterkuppel) not by a spherical dome, and the thrust is thereby spread over the side walls instead of being concentrated on the angles, but the problem of distributed weight and thrust is dealt with as skilfully as in the churches, and the solution is in either case the same. In Asia Minor a number of rock-cut monuments, such as the Phrygian tombs at Yapuldak[2] and Ayasin,[3] show a strong tendency towards the same domed and centralised scheme, a tendency which is all the more marked in the vaulted masonry tombs of the south coast.[4] The roof of the central chamber at Ayasin is already hollowed out roughly into a dome; the arcosolia at Yapuldak prepare the way for the open arches which, set under all four sides of the dome, distinguish the cross-in-square from the domed basilica. So too at Ferashabad the dome rests on four corner piers with open arches between.[5]

[1] De Vogüé: La Syrie Centrale, p. 46, pl. 7. It has since been destroyed.

[2] Journal of the Hell. Soc., vol. x., p. 182.

[3] Perrot and Chipiez, vol. v., p. 12.

[4] Termessos, etc. Jahrschaft des ö. arch. Inst., vol. iii., p. 204.

[5] Dieulafoy, L'Art antique de la Perse, vol. iv., p. 77. The same type of building is found at Djerash (Choisy: L'Art de bâtir chez les Byzantins, p. 88) and is reproduced with singular exactness in the church of the Trinity at Ephesus (Choisy: *ibid.*, p. 158, pl. 4), in a church at Philadelphia (*ibid.*, p. 160, pl. 16), and in two at Sardis (*ibid.*, p. 161, pl. 16). Hommaire de Hell. gives a brief record of a church at Tireboli which would seem to be of this type (Voyage en Turquie et en Perse, iv., p. 394, pl. 20, Atlas pl. 31). His church at Gumush Khane (iv., p. 395, pl. 21) deserves close examination. Strzygowski put the church at Üch Ayak (Kleinasien, p. 32) in the same group. Its connection with the above series in the coast lands is emphasised by the setting of the dome on pendentives. Crowfoot's description indicates the presence of true pendentives with a drum above them: "the domes are supported on pendentives with a marble coping"; *i.e.*, to divide the pendentives from the drum. Rott has recently expressed an opinion that the brick architecture of Üch Ayak is derived from the Euphrates Valley, possibly from Samosata, not from the Hellenistic coast, and, as has been said, he believes the church to be the typical Cappadocian martyrium (Zeitschrift für Geschichte der Architektur, 1908, 6). I doubt the correctness

In spite of these analogies and the isolated example of the almost perfected type at Musmieh it has been suggested that the cross-in-square church had no independent origin, but was developed out of the domed basilica,[1] which was a creation of Constantinople and the coast lands. It must be admitted that the building at Musmieh was not reproduced in Syria during the Christian period, and its complete absence from that country may be due to the fact that the Arab invasion occurred, and Christian architecture ceased, before the type of the cross-in-square was established. I do not believe that it was a form proper to the Anatolian plateau, like the cross-shaped church and the basilica. It appears infrequently, generally at a comparatively late date and charged with decorations which are not found on the native stone architecture, the concentric brick arch, the niche, and the shallow pilaster. The possibility of Armenian influence cannot, however, be dismissed. At Edgmiatsin the cross-in-square is found as early as the late sixth or early seventh century,[2] and the form recurs at Ani.[3] So far as I know the churches at Edgmiatsin are the earliest examples of the cross-in-square. They undoubtedly imply an Asiatic prototype and exhibit no trace of being derived from the domed basilica.

Strzygowski has published two examples of the cross-in-square from Central Anatolia, the church at Fisandün already mentioned, and Tchangliklisse. To these I can add several more besides the two in the Kara Dagh. There is a church on Ali Summasi Dagh almost exactly similar to Fisandün, Ala Klisse,

of this view in face of Choisy's series, but the cross currents in Anatolian architecture are infinite and judgment must be withheld until further evidence is collected.

[1] Friedenthal: Das Kreuzförmige Oktogon, p. 25.

[2] Strzygowski: Dom zu Aachen, p. 41.

[3] Brosset: Les ruins d'Ani. M. Millet calls my attention to transition forms between the cross-shaped church and the cross-in-square which are to be observed both in Crete (Gerola: L'Isola de Creta) and in the Caucasus (Materialy po archeologii kavkaza, parts iii. and iv., Moscow, 1893-94). I note in the Caucasus a marked tendency to cross-shaped churches with side chambers, rather than the true cross-in-square. It is not, however, easy to distinguish some of the cross-in-square churches from the cross-shaped·

a few hundred metres below the cross-shaped church which has already been described. A more detailed account of Fisandün is essential to the complete understanding of Ala Klisse, while, in respect of the narthex, Ala Klisse helps to a reconstruction of Fisandün (Fig. 324). At Ala Klisse the interior of the building is deep in fallen masonry, which, as the greater part of the walls is standing, would point to the church having been vaulted. Under this débris the piers are completely hidden, but I feel no hesitation in restoring them owing to the returns for arches which are to be seen in the N., W., and S. walls. We have, therefore, a cross-in-square with a narthex. The narthex was entered by a single door (Fig. 325). Above the heavy lintel was a double relieving arch surrounded by a string-course decorated with a concave moulding which ran all round the church beneath the windows. On either side of the relieving arch was a blind niche, doubly recessed and covered by a horse-shoe arch. Above the door was a window, much recessed, with a cavetto moulding forming the sill. On the S. side the hill fell away sharply and the S. wall was set on a substructure of masonry to correct the slope (Fig. 326). On the N. side the church is built against the hill, and the E. end of the wall has been destroyed by the pressure of falling earth and stones. The decoration of the S. wall is interesting and beautiful. Resting on the moulded string-course above mentioned are shallow pilasters bearing arches (these are omitted at Fisandün). The tympanum and the upper part of the space between the pilasters are filled with masonry, the lower part with niches like the two described in the façade but arranged in groups of three and five. The W. end of the wall has fallen and with it one of the groups of niches; in the remaining two groups of three the central niche is pierced by a narrow window; in the group of five there were three windows. The small horse-shoe arches are filled in with an incised Greek cross, and a marked colouristic effect is produced by using a lighter stone for the niches and a darker for the masonry of the walls. In the interior of the narthex a couple of ribs supported the barrel vault, which I believe to have existed, and a single door gave access to the nave. On either side of this door there was a tall,

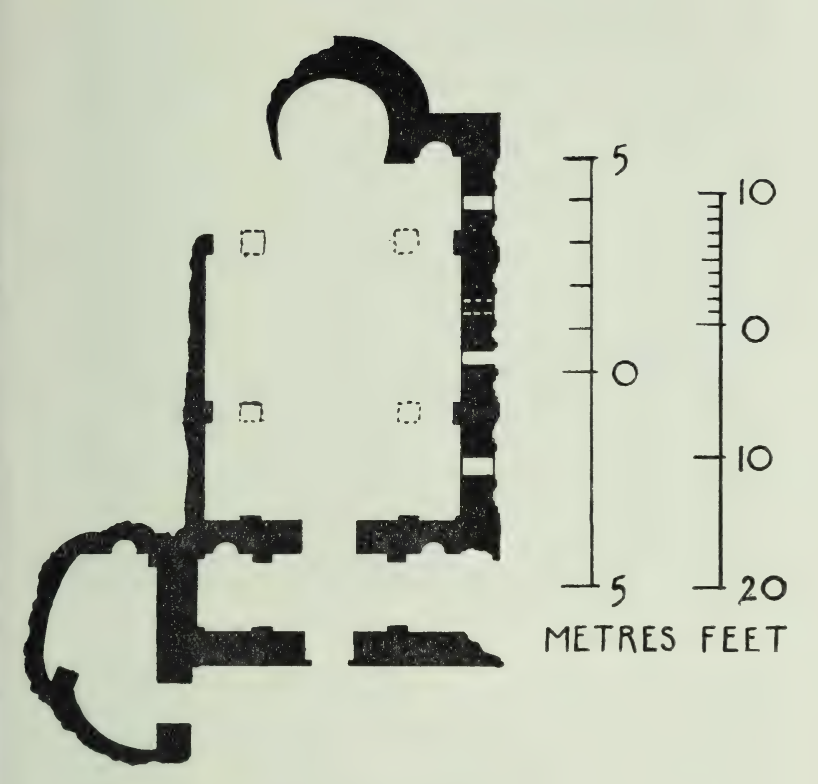


Fig. 324.—Ala Klisse.

Fig. 325.—Ala Klisse, from W.



Fig. 326.—Ala Klisse, from S.

narrow arched recess. The apse was very much ruined; the interior curve was certainly horse-shoed, and I believe the exterior curve to have been horse-shoed also (Fig. 327). There had been small apses hollowed out of the thickness of the wall on either side of the main apse. Immediately to the W. of the church there was a chapel formed out of a natural cave. The door was covered by an exceptionally massive lintel on which was an incised cross in a medallion. Above the lintel the opening of the cave was filled in with masonry; within, the natural rock was supplemented by masonry piers bearing arches, and a niche hollowed out in the E. end represented an apse. The masonry of the church looked good and accurate on the outside, but was in fact very poor. The inside of the walls had been completely covered with plaster on which there were traces of fresco; where the plaster had fallen off, miserably rough and careless work was revealed. The rubble core was bonded together by wooden beams, the only example of this practice known to me in the ecclesiastical architecture of Central Anatolia (except at St. Amphilochius, Konia, where it may be due to reconstruction), though I observed it in the walls of the fort that occupies the island at the northern end of the lake of Egerdir. These beams had been carried through from wall to wall at the angles of the church; they are clearly visible in Fig. 327, where the W. wall, in spite of all expedients, has detached itself and is falling away bodily from the S. wall. Crowfoot noticed wooden beams at Üch Ayak. Strzygowski observes that the use of beams sprang from the same cause as the use of very wide layers of mortar in brickwork: the poor quality of the mortar.

There are two cross-in-square churches near Konia, at Silleh and at Miram.[1] In both cases the dome is set on pendentives. In Konia itself the type is represented by the church of St. Amphilochius, which has been so much altered and rebuilt that it would require very careful study to make sure of all the details of the original plan (Fig. 328). It bears a close resemblance to Miram, but is without a narthex. The central

[1] I published them in the Rev. Archéol., Jan., 1907.

dome is carried on two strong masonry piers and two engaged piers, one on either side of the apse. (A dome in the N.-W. corner I believe to be of the Mohammedan period.) The apse is very deep, a rectangular chamber being laid before the shallow curve; outside, the whole apse is rounded and stilted (Fig. 329). There is a smaller apse to the S. but none to the N. The S. wall shows remains of an arched niche, doubly recessed, enclosing a window of two lights (Fig. 330). The square windows to S. and E. are obviously modern. The dome hangs over a high drum, polygonal outside and adorned with two rows of recessed niches, the lower one being alternately blind and pierced with windows. The rectangular wooden superstructure belongs to a modern observatory. When the church was converted into a mosque a mihrab was hollowed out in the S. wall.

Of the fine church at Tchangliklisse Strzygowski had only a photograph and a few notes by Smirnov[1] (Fig. 331). It lies on a barren hill-side over against Hassan Dagh (Fig. 332), and is still in so perfect a state that every detail of the original structure can be made out. It consists of a cross-in-square church with a single-chambered church lying to the N. of it; the W. wall of the two is continuous (*cf.* Süt Kilisse). A narthex in two storeys lay before the larger church; it is, however, a later edition. The lower storey contained a door in the centre of the W. wall and a door in the S. wall (Fig. 333); both have been covered with a lintel and a horse-shoed relieving arch. In the upper storey there was a row of six large windows in the W. wall (four are standing) and one in the S. wall (Fig. 334). All the windows are horse-shoe arched. A moulded band ran continuously over the W. windows and seems to have been carried round the corner of the wall and over the window on the S. side. There was no window in the W. wall of the narthex opposite the chapel, and the vaulted interior is quite dark. I think there was a door at the northern end and am not certain whether there was a second storey here. The transepts have at no time been very salient upon the outside, they were, however, marked on the outer walls by a large blind niche of two

[1] Kleinasien, p. 156. Now published by Rott: Klein Denk., p. 259.

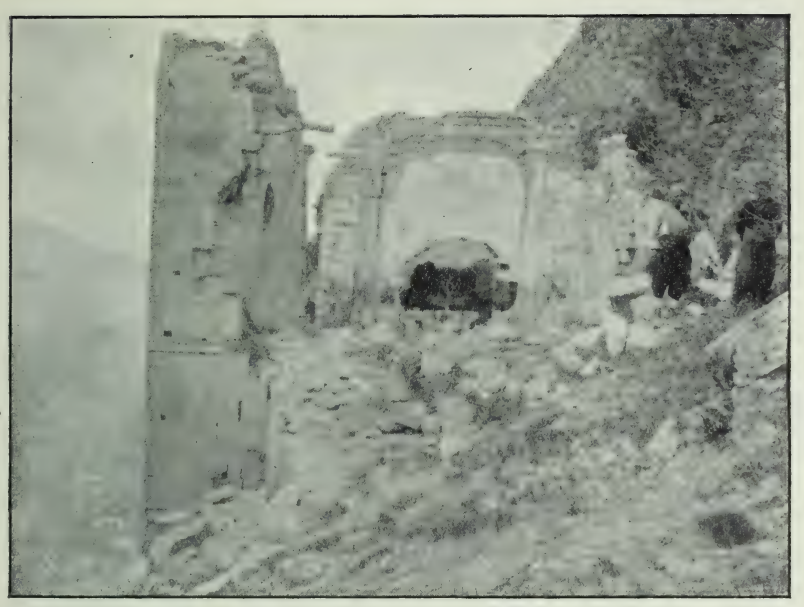


Fig. 327.—Ala Klisse, from E.

Fig. 328.—St. Amphilochius.



Fig. 329.—St. Amphilochius, Konia, from N.-E.



Fig. 330.—St. Amphilochius, Konia, E. end of S. wall.

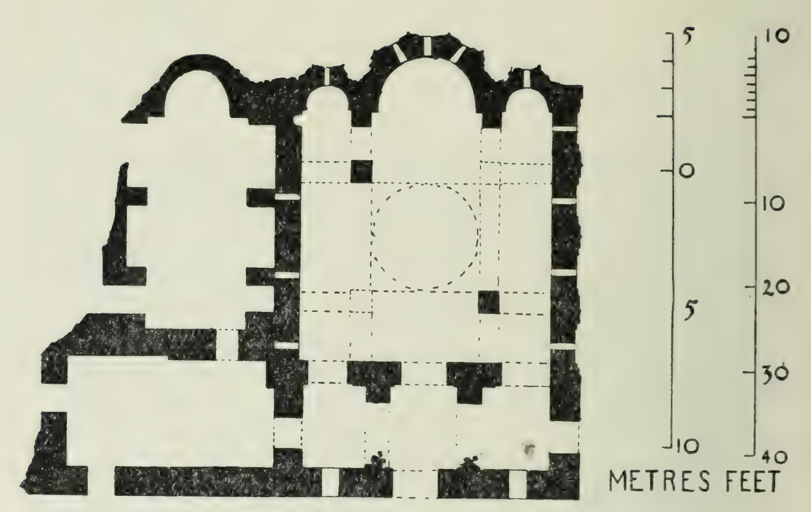


Fig. 331.—Tchangli Klisse.



Fig. 332.—Tchangli Klisse, from N.-E.



Fig. 333.—Tchangli Klisse, from W.



Fig. 334.—Tchangli Klisse, from S.



Fig. 335.—Tchangli Klisse, detail of apse.

concentric arches containing two lancet windows; on either side, the wall is again broken by a smaller blind niche of two concentric arches, the inner being partly of tiles. The lower part of the N. wall is concealed by the chapel, the S. wall was elaborately decorated with four niches, each of three concentric brick arches; a lancet window, arched with brick voussoirs, pierced each niche and the wall is further adorned by two bands, each one consisting of four courses of brick. The three apses are all visible upon the outside (Fig. 332). They are all polygonal, the central apse having five faces, the outer apses three. The two bands of brick were carried all round the E. wall, and the niche decoration continued on each face of the apse polygons, pierced in the central apse three times with windows and in the small apses once. On the main apse the spandrils between the niche arches are filled with brick, here laid horizontally, not, as on the S. side, in lines concentric with the arches (Fig. 335). There is a third band of bricks higher up and a second row of niches exactly similar to the first except that they are all blind. The semi-domes of the side apses were set lower than that of the central apse; they lay against the E. wall of the barrel vault that ran E. and W. over the chambers between transept and side apse. The semi-dome of the central apse lay against the E. wall of the barrel vault that covered the space between dome and semi-dome. The transepts also were barrel vaulted, but the vaults ran N. and S. The same system of roofing held good at the W. end of the church. The drum sprang immediately from the central square formed by the four great arches of the interior vaults; it was a twelve-sided polygon, each face being broken by recessed niches of which four were pierced with lancet windows. A modillion moulding crowned it and the calotte was roofed with a flattened cone covered with tiles (or thin stone slabs?). To turn to the interior. The lower storey of the narthex was covered with a roof of three groined vaults (Fig. 336) with two arches between, which sprang on the W. side from brackets and on the E. from engaged piers (Fig. 337). The bands of brick noticed upon the exterior of the church were carried round the W. wall (the engaged piers were built over them). Three

doors led into the church, each having a lintel with a horse-shoed relieving arch over it (Fig. 338). Above the central door there was a window which opened out of the upper storey of the narthex. Above the S. door there was a large and deep arched niche and above the N. door a small niche of two concentric arches, the inner one being of bricks (Fig. 333). Four massive masonry piers supported the dome; the N.-W. and S.-E. piers have fallen. The dome was set on pendentives (Fig. 339). The interior of the drum was round not polygonal. The apses were not horse-shoed. I think it certain that the chapel to the N. is a later addition. The niched decoration which appears on the S. wall of the church is in existence on the N. wall (it can be seen in the recesses of the chapel wall) and the lancet windows which are visible in the interior of the church have been blocked by the chapel buttresses. A door in the N. wall of the narthex of the church led into the vaulted, unlighted chamber that served as narthex to the chapel. It was at a slightly lower level than the narthex of the church. To the N. there was a door leading into some small chambers cut out of the rocky hill-side, possibly tombs. A small door led from the narthex into the chapel. On either side of the chapel were three arched recesses (Fig. 340), the westernmost considerably smaller than the other two. On the N. side this small recess was broken by a door, though whether it led outside or into a rock-cut chamber I cannot be certain. The chapel had been barrel vaulted; the arch over the apse was horse-shoed, the apse was lighted by three windows; I do not know the outer form of it, for it was buried under earth and ruins.

The masonry was throughout excellent. The stones were pointed with mortar, the brick-work exhibited the Oriental peculiarity of having mortar wider than the bricks themselves.[1] In Figs. 334 and 335 the exact arrangement of the niching can be distinguished. The outer line of concentric brick arches rested on hammer-shaped capitals supported by small round engaged pillars which were carried over the bands of brick

[1] Kleinasien, p. 39.



Fig. 336.—Tchangli Klisse, interior of narthex, looking S.



Fig. 337.—Tchangli Klisse, engaged pier in narthex.



Fig. 338.—Tchangli Klisse, interior of church, showing W. door of nave.

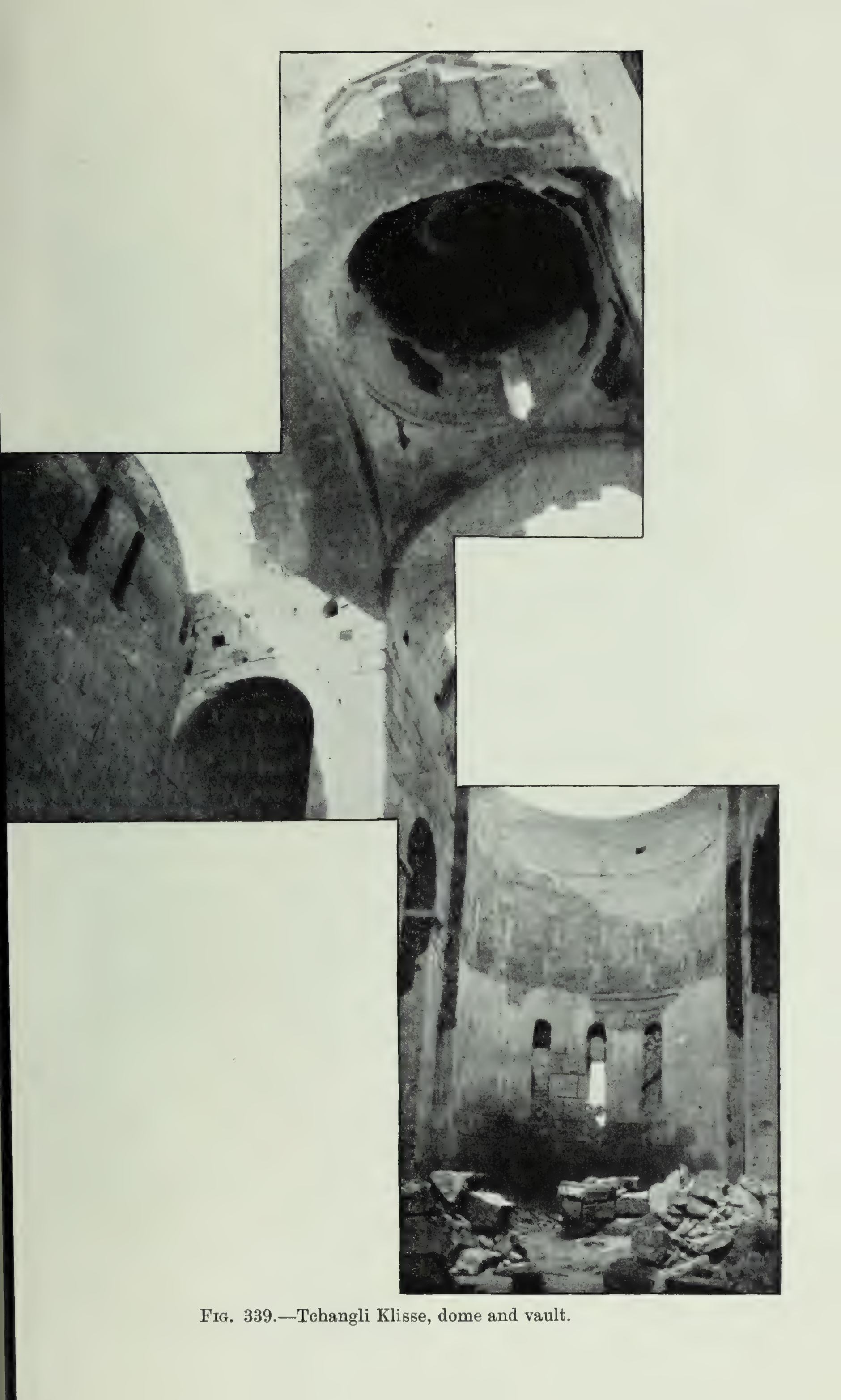


Fig. 339.—Tchangli Klisse, dome and vault.



Fig. 340.—Tchangli Klisse, chapel, interior of apse.

and terminated by a base exactly like the capital reversed. The recessing was not taken below these bases. On the N. apse there was only one brick arch, on the central and S. apses there were two concentric brick arches, on the S. wall three. Above the main apse were fragments of a cornice moulding not unlike that of Sivri Hissar; I saw no trace of modillions here; they appeared however on the cornice of the drum. A narrow cavetto moulding, with a filleted band above the cavetto, crowned the interior piers (Fig. 339). The cavetto is found on the engaged piers and brackets on the E. wall of the narthex (Fig. 337) where it is decorated with an incised pattern resembling some of those used in the mosaics of Daphni; the resemblance is the more marked by the fact that it had been coloured.[1] All the church had been plastered and frescoed, and a good deal of the fresco still remained. On the lower part of the N. wall in the interior of the church there was a fragment of a fresco, which I believe to have represented the Last Judgment, showing a crowd of small white-robed figures; in the N. apse a winged angel in the semi-dome with a row of saints below; in the main apse, a row of seven saints above the windows (Fig. 339). In the semi-dome of the S. apse was the head of the Virgin with Christ seated below; in the upper part of the chamber to the W. of this apse there were remains of three white-robed figures advancing to the E. The S. wall of the S. transept was divided above the windows into rectangular fields by bands edged with a line of colour and filled with geometric rinceaux. In the upper left-hand field the Nativity was represented (a woman holding the babe dressed in swaddling clothes, angels bringing napkins,[2]) and in the next field to the right the entrance into Jerusalem with Christ riding upon an ass—this picture is broken by the archway and continued on the wall W. of the arch. On the piers and on the W. wall were tall figures of saints (Fig. 338, on the left-hand pier).

[1] Millet: Le Monastère de Daphni, p. 73. The brickwork also presented close analogies with Daphni if the restoration there is to be trusted (*ibid.*, pl. 4).

[2] Rott, who is a far better authority than I am, calls it the birth of the Virgin.

There is some building and a great deal of rock-cutting in the immediate vicinity of the church. To the E. is a long-vaulted chamber running N. and S., the northern end rock-cut. Below the church to the S. are large rock-cut halls running far into the hill; these continue to the W. where there is also a rock-cut, five-domed church. Farther to the W. there is a carved façade (horse-shoe niches) and a mass of columbaria. Below the church is a good spring. I have no doubt that the whole site is monastic. Smirnov ascribed Tchangliklisse to the tenth and eleventh centuries, and I see no reason to differ from that view.[1]

A couple of hours' ride from Tchangliklisse, near Pelistrama in the Irkhala Dere, there is another church which goes a step further in the prolongation of the sanctuary (Fig. 341); it is called Ilanli Klisse, the snake church.[2] There are here two sets of piers dividing the apse from the dome, whereas at Tchangliklisse there was only one. The church has been much ruined by the slipping down of the hill-side to the E. and S.; the W. end has fallen completely, and without excavation the plan of the narthex cannot be established. The nave and the two aisles were apsed; all the apses were rounded (not horse-shoed—there were no horse-shoe arches in this church) inside and polygonal outside. The main apse was lighted by three lancet windows (there was a square recess about a metre and a half below them), the side apses by one window.[3] The vaulting over the main apse and the space to the W. of it rises in steps as it goes westward. The semi-dome is pitched the lowest, the barrel vault between the semi-dome and the first pair of piers is one course of stones higher, the barrel vault between the two pairs of piers one course higher still (Fig. 342). The dome was set on pendentives (I think my photographs make this certain); no doubt there was a high drum lighted by windows. The transepts were lighted by three lancet windows high up in the

[1] Kleinasien, p. 175.

[2] Rott has visited it but has not yet published his plan. He calls it Karadjedik Klisse (Klein. Denk., p. 274), and the rock-cut church in the same valley, which I call Ala Klisse, is named by him Ilanli Klisse. One of us has got the names wrong and it may well be that I have.

[3] These windows are not correctly represented in the plan.

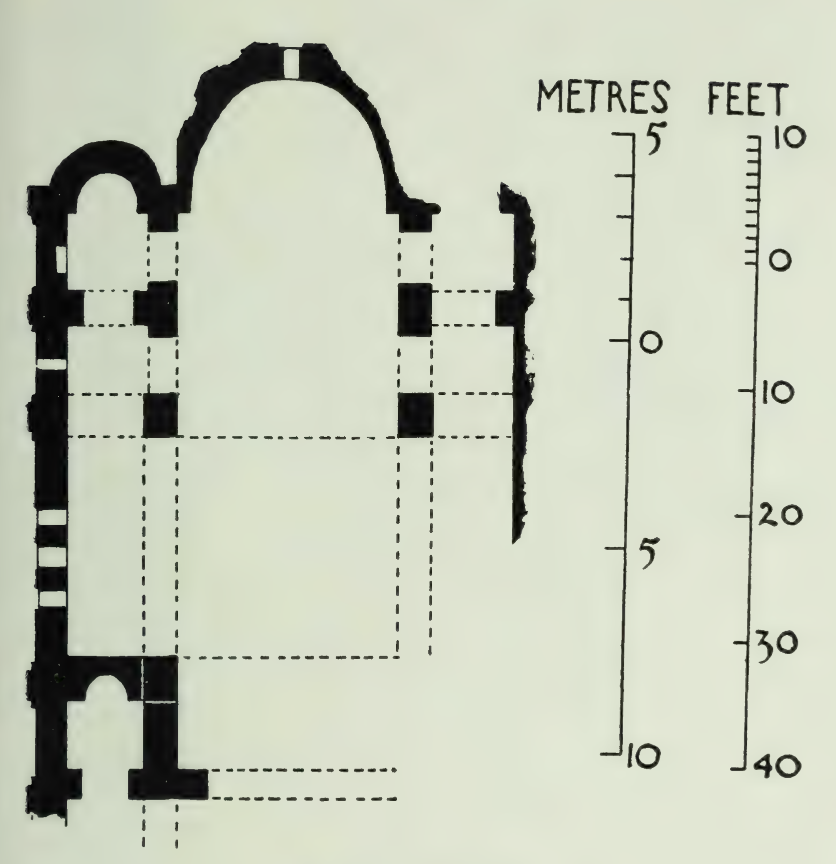
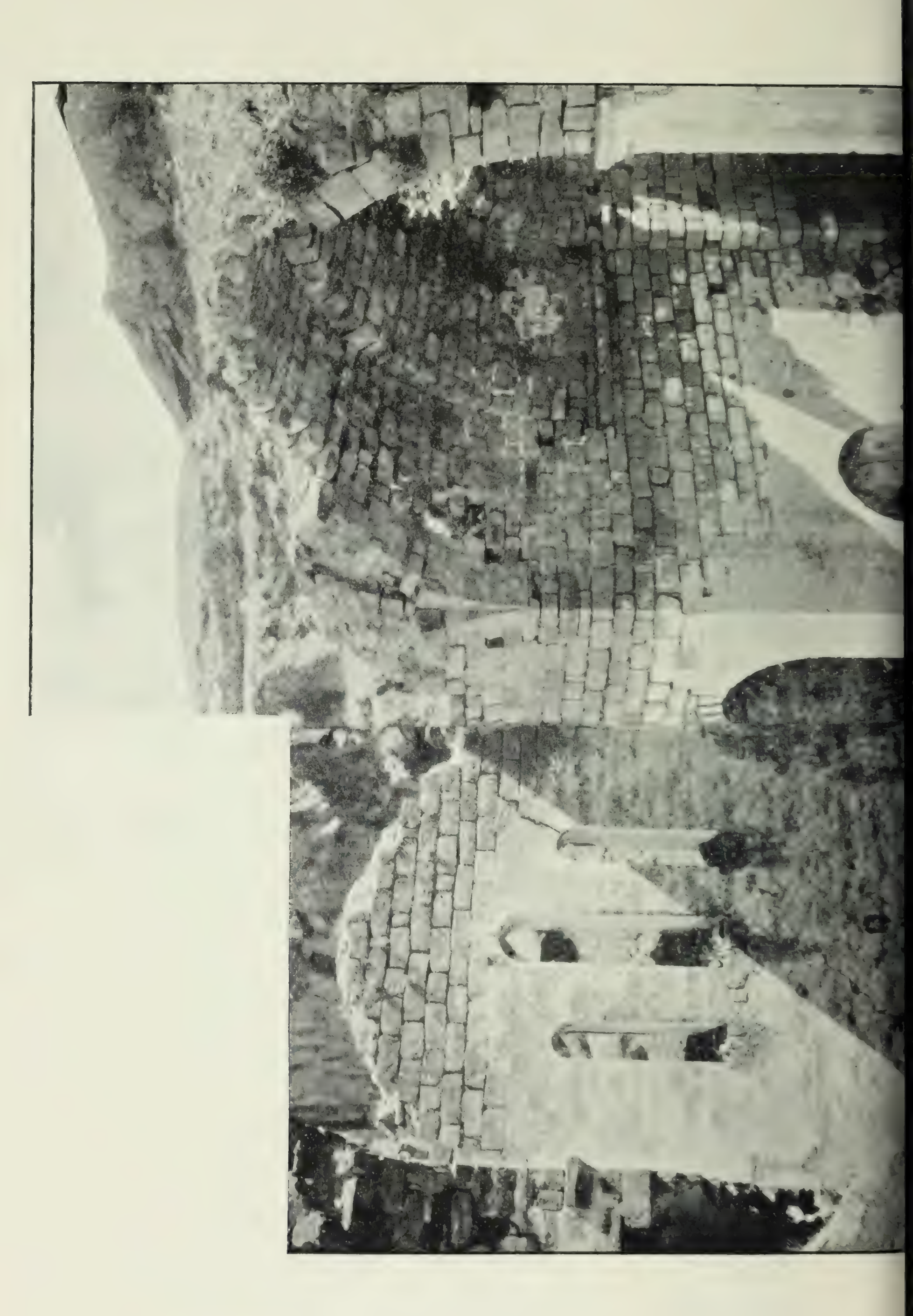


Fig. 341.—Ilanli Klisse.



walls. The two chambers W. of the side apses were covered with barrel vaults. The W. wall of the N. transept (the S. transept has fallen) had not been broken by an arch (Fig. 343). The space between the two western piers and the N. wall was occupied by a small chapel, but a good deal of the lower part of it to E. and S. had broken away. Higher up, the spring of the great arches under the dome was visible, and farther W. stood a fragment of the wall that had closed the nave. It had contained a large arched entrance and over that a window. On the exterior, the face of the N. transept was outlined by an arched niche doubly recessed (Fig. 344); the lancet windows were recessed and covered with concentric brick arches. The transept was raised high over the barrel vaults to E. and W. The large recessed niches appeared on the walls to E. and W., but here the concentric arches were made of alternate brick and stone, two bricks between each stone. The niche W. of the transept enclosed a second small lancet-shaped niche arched with brick; farther to the W. the wall had broken away, but it was possible to see that there had been another large niche higher than the one to the E. of it, that the concentric arches had contained brick and that there was at least one lancet window in the wall. E. of the transept the wall was decorated with two niches of equal size, each composed of two concentric stone arches; in one there was a lancet window (Fig. 345). The N. apse was not niched; on the main apse, five of the seven faces of the polygon had contained recessed niches, the three in the centre pierced with windows. No brick was used here. All the interior of the church had been plastered and frescoed, and much of the fresco remained. In the N. apse there was a representation of the Virgin and Child, with an inscription; on the S. wall of the S. chapel, Christ carrying the Cross. Inside the arch of the W. door of the nave there was a saint, with an inscription. On the exterior of the N. wall there were medallions carved with an eight-pointed star, and on either side of the three lancets of the transept were incised representations of a bird and a hare (*cf.* Yaghdebash).

In Gelvere there is a large cross-in-square dedicated to St. Gregory of Nazianzos, which seems to be of much the same

type as Ilanli Klisse (Fig. 346). It has been very largely restored, and I had no time to study and plan it. The main apse was polygonal outside and the side apses were round (Fig. 347); the system of niching closely resembled that which was employed at Ilanli Klisse.

So far as is known at present, this closes the list of cross-in-square churches on the Anatolian plateau, but if the masonry churches of this type are comparatively few in number, the rock-cut churches are infinite. They are not as yet sufficiently published to admit of a general estimate of their characteristics, but many of them have recently been examined by two competent archæologists and it is to be hoped that they will give an exhaustive account of them. Such as have been planned up to now[1] do not seem to have more than a single dome, but I have reason to believe that the five-domed Comnenian type, which is not found so far as I know in masonry churches on the plateau, was common in rock-cut churches. One example from Silleh I have published in the Révue Archéologique;[2] I saw another in the Irkhala Dere (Ala Klisse, already mentioned in connection with painted façades) and a third near the great church of Tchangli Klisse. My general impression with regard to the rock-cut churches which abound in certain parts of Asia Minor is that they cannot be dated very early; Sir W. Ramsay agrees with me on this point, and the view receives confirmation from P. Guillaume de Jerphanion, who dates the Cappadocian rock cuttings from the ninth to the thirteenth centuries.[3] Rott compares their arcaded façades with the façades of Sassanian palaces; I shall have occasion to show that the niche decoration of the masonry churches is a motive inherent in Asiatic brickwork translated into Anatolian stone architecture. Together with this it must be borne in mind that the cross-in-square is far beyond all others the typical architectural form of Armenia where it is found at an early date. Whether Armenia borrowed from Constantinople or Constanti-

[1] Ayasin (v. Reber: Die Phrygische Felsendenkmäler, p. 598), Kyzyl Ören and Soanlydere (Kleinasien, p. 147).

[2] Jan., 1907, p. 25.

[3] Bulletin de l'Acad. des Ins. et Belles Lettres, Jan., 1908, p. 19.

Fig. 343.—Ilanli Klisse, interior, looking W.



Fig 344.—Ilanli Klisse, from N.

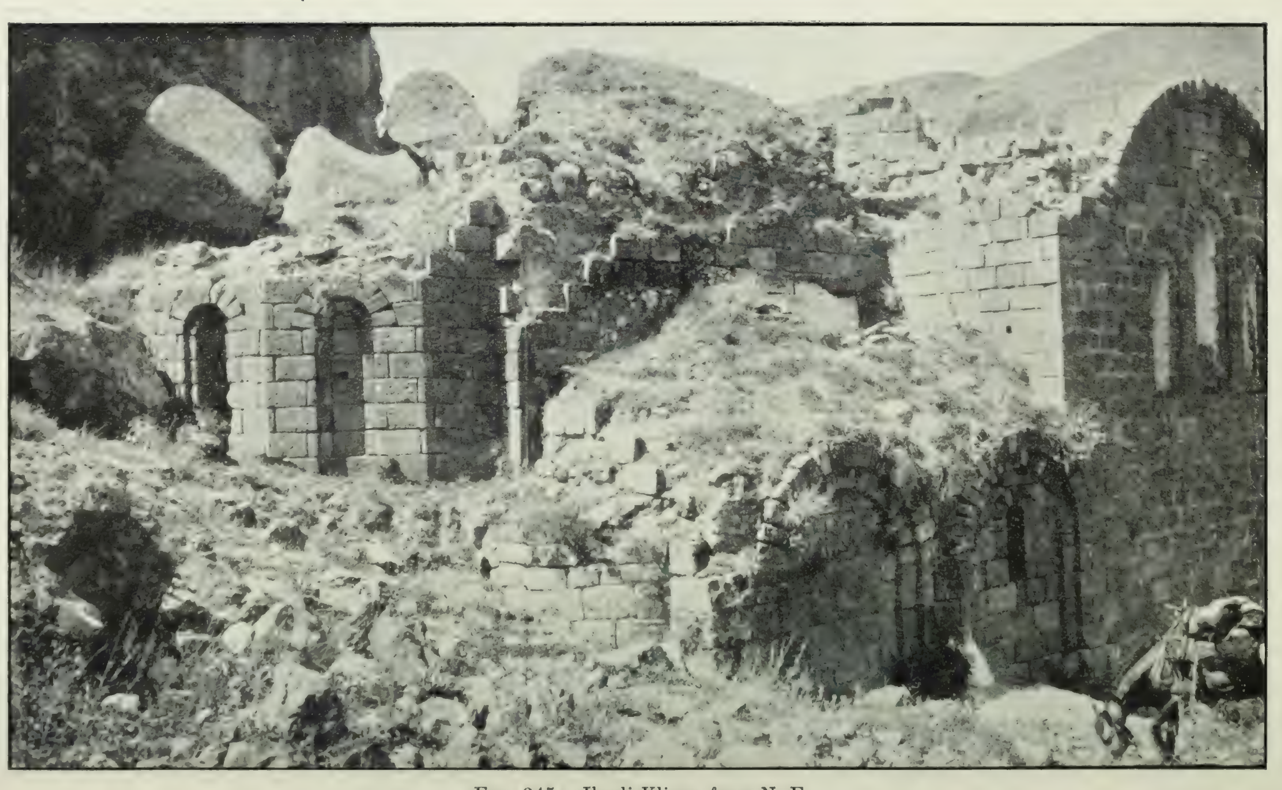


Fig. 345.—Ilanli Klisse, from N.-E.



FIG. 346.—St. Gregory of Nazianzos, Gelvere, from S.-E.

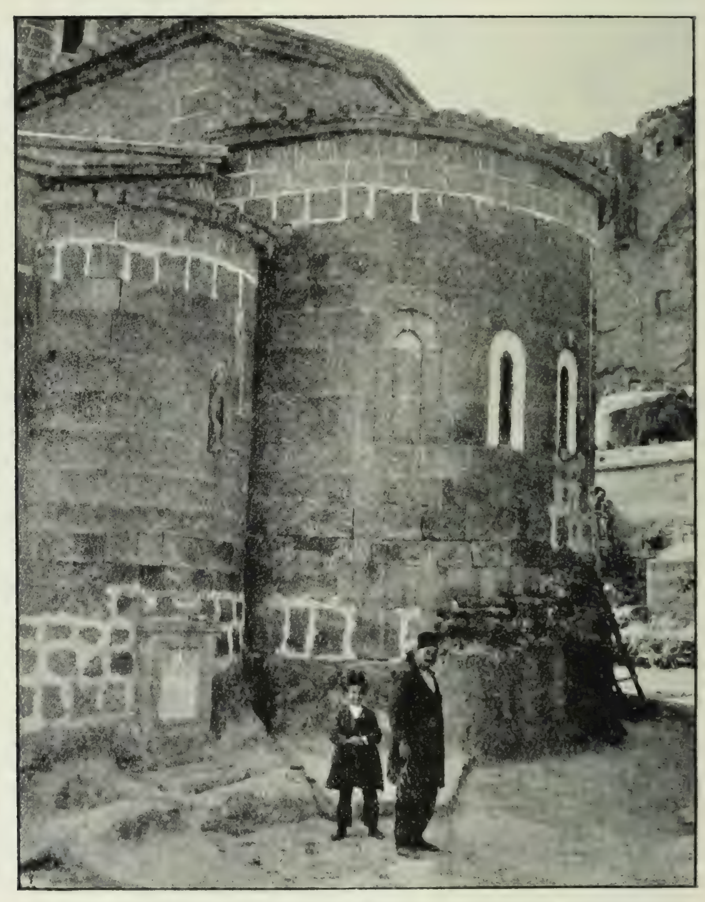


Fig. 347.—St. Gregory of Nazianzos, Gelvere, apse.

nople from Armenia I do not venture to decide. Heisenberg[1] has recently pronounced the opinion that from the age of Justinian onwards the artistic influence of the capital was predominant all over the Byzantine empire. Strzygowski believes that as late as the ninth century the builders of Constantinople were still acquiring new architectural forms from the eastern provinces.[2] Until the very late period represented by Tchangli Klisse and Irkhala Dere, Central Asia Minor appears to be more closely linked to Inner Asia, to Armenia and Mesopotamia, than to Constantinople and the coast lands, and though I regard the cross-in-square as a scheme not indigenous to the plateau, I am tempted to see in such churches as Tchet Dagh and No. 35 the architectural genius of Inner Asia working on a plan known to the Hellenistic world and probably itself Asiatic. It is well to bear in mind that the Anatolian plateau does not, so far as is yet known, show a single example of the domed basilica, except St. Clement's of Ancyra, which is in several respects closely related to the coast type; on the other hand, the coast lands of Asia Minor do not contain any instance of a cross-in-square church belonging to the series just analysed;[3] though it is found in Constantinople. Moreover, the eightfold support to the dome which exists in an important group of churches in Greece and the islands (Daphni, St. Luke in Phocis, Nea Moni in Chios, St. Nicodemus at Athens, etc.), is not represented in Central Asia Minor.

[1] Grabeskirche und Apostelkirche.

[2] Strzygowski: Der Dom zu Aachen, p. 39 *et seq.*

[3] Dere Aghassi near Myra is a cross-in-square, but it does not belong, in my opinion, to this series. It is a natural development from the domed basilica of the coast lands with which it maintains many resemblances. Millet's phrase quoted above, p. 343, "Ces bas côtés, elle les a retenus de son prototype, la basilique à coupole," is very true of Dere Aghassi and the coast type, and his suggestion, that the domed cruciform followed necessarily from the domed basilica as soon as the Hellenistic pendentives were introduced into the latter, is extremely ingenious, but these things do not apply to the interior of the country. The domed basilica does not exist there; the domed cruciform sprang into being whether pendentives were used or no, and as a general rule in the early churches they were not used, but the squinch and the corbel, both of them Asiatic methods of dome setting, were employed.

The cross-shaped church, on the other hand, is present on all parts of the plateau, and in the eastern districts there are few churches that take any other form. It is one of the oldest architectural motives in Central Asia Minor, and wherever it appears as a simple T-shape, either with or without supplementary chambers, it bears the mark of antiquity. Its original character appears to have been memorial; in Lycaonia the basilica came to be used for congregational churches and for the churches of the larger monasteries; in Cappadocia, where this was not generally the case, the cross-shape had a longer history and underwent modifications which resulted in churches of the Yaghdebash type, and possibly in others with which we are not yet acquainted. The problem of the cruciform must be studied in Asia Minor; there, and apparently there only, was the plan universally adopted at a very early period, and there it received its first developments.

4. The Octagon

Centralised buildings are represented in the Kara Dagh not only by the cruciforms, but also by two churches in Maden Sheher, Nos. 8 and 10. An octagonal scheme is common to both, but is in each case differently expressed. No. 8 is a combination of the octagon with the cross-shaped church; in No. 10 the octagonal form is confined to the interior structure and the exterior is fourteen-sided, one of the sides being replaced by an apse.

In the introduction to his brilliant chapter on centralised buildings Dehio has observed that the early Christian centralised church is the direct continuation of the heathen-antique. "Here the general relation of early Christian architecture to the heathen-antique can be recognised more clearly than elsewhere."[1] What then are the ancient sources from which the Christian builders drew their inspiration? Stark has analysed them in his account of the famous shrine of a Syrian god who, according to the synchretic methods of the cults of antiquity, was assimilated to Zeus but still retained his Oriental attributes.

[1] Dehio and Bezold, *op. cit.*, p. 19.

The Marneion at Gaza, which, with the Serapeion at Alexandria, was the most renowned centre of the dying heathen world, was a vast circular temple surrounded by two porticos. Above these porticos soared the dome of the Adyton which was provided with an opaion to let out the smoke.[1] The round form is Oriental in origin and its use in Greek architecture is confined to a small group of deities, especially Dionysus and Aphrodite, all of whom had been profoundly affected by alien Asiatic cults.[2] The Serapeion was also round, and Stark gives several other examples, a temple of Aphrodite in Cnidus, a temple of Bacchus in Teos, etc. To another German archæologist belongs the credit of recognising the connection between the Marneion and the round churches built by Constantine and Helena in Jerusalem over the Holy Sepulchre and on the Mount of Olives.[3] The scheme of the churches was a motive "known to the ancient East, or at least to the Diadochi,"[4] and it is perhaps not without significance that the inner portico is found not infrequently in small undomed buildings of the latter period, for example

[1] Dehio is rather misleading when he speaks of it as hypaethral; the dome is indicated by the careful mention of a hole to let out the smoke: "ejus vero medium erat ad emittendos vapores constitutum". The opaion must have been small. The passage from Marcus's Life of Porphyrius is quoted by Dehio (*op. cit.*, p. 36).

[2] Stark: Gaza, pp. 576-89. Neither Stark nor Dehio mention the round temples of Vesta.

[3] Sepp: Die Felsenkuppel, p. 46. He is of opinion that the Marneion combined the octagonal with the circular plan, but see Strzygowski: Kleinasien, p. 101. I do not think that the sole description of the Marneion which is preserved gives sufficient reason for deciding whether the temple was in the form of the Pantheon (*i.e.*, the dome resting on the enclosing wall), or whether the dome was supported by a circular structure of columns inside, and was thus raised aloft above the enclosing wall. An interior portico is not mentioned by Marcus, though he is careful to describe the two on the exterior. The only evidence in favour of the second scheme (and it is certainly forcible) is that afforded by the Constantinian churches. But Heisenberg reduces Constantine's circular Anastasis to very modest dimensions, and will not attempt to decide on the prototype which inspired the builder of it (Grabeskirche und Apostelkirche, i., p. 213).

[4] Dehio, p. 36. Rubensohn (Die Mysterienheiligtümer in Eleusis und Samothrake, p. 154) discusses the round buildings of the Diadochi in their relation to each other.

the Philippeion at Olympia, where the columns are not yet entirely detached from the inner wall, the Tholos at Epidaurus and the temple built by Arsinoë at Samothrace, where they stand free. Unfortunately both the Jerusalem churches have been destroyed and rebuilt several times; the sketch plans of the seventh century pilgrim Arculphus can scarcely be said to deserve the authority which has been accorded to them, since even in his day the fourth century buildings had been destroyed and replaced by others.[1] It is, however, probable that in these churches and in the Constantinian octagon at Antioch,[2] Oriental builders, working from Asiatic and Hellenistic architectural forms, solved the problem of the relation between the circumscribing aisle and the interior arcade that bore the high roof or dome, and the authority of Constantine marked out the type as one to be accepted and imitated by the Christian world.[3] In Europe the round or octagonal plan was used exclusively for baptisteries and martyriums, never for parish churches,[4] but in the East this was not the case. The octagon at Nazianzos, built by the father of St. Gregory and described by the latter in his well-known sermon, was certainly intended for a parish church. It is a proof that the fully developed form with tribunes, which was to be immortalised by Justinian at Ravenna, was already perfected in Asia Minor in the fourth

[1] Heisenberg, *op. cit.*, i., pl. 10. Heisenberg believes that the rotunda seen by Arculphus was that which was constructed by Modestus after the Persian invasion, and that it had no resemblance to any work of Constantine's time. For the total disappearance of all the round churches of the early Christian period which are known to have existed in the Holy Land, see Baumstark: Römische Quartalschrift, 1906, Archäologie, p. 129. One of Constantine's rotundas remains, however, intact: Sta Costanza at Rome.

[2] Kleinasien, p. 95.

[3] How difficult of imitation was the unfamiliar type to Western builders is shown by the anxious care with which the dome of Sta Costanza is raised on coupled pairs of columns (Strzygowski: Der Dom zu Aachen, p. 38). Baumstark compares the complicated forms exhibited by the baptistery of the church of St. Menas in the Mareotis desert (probably the earliest part of the whole complex) with the timorous simplicity of the Lateran baptistery (Röm. Quar., 1907, p. 12).

[4] Dehio, p. 20.

century.[1] Another round church is known to have existed in Asia Minor at the same date, that of Nicaea, said to have been a copy of Helena's rotunda on the Mount of Olives. It was here that the second Œcumenical Council was held in 325.[2] Of all the literary evidence concerning the fourth century none, however, is so important as that contained in the letter of St. Gregory of Nyssa to St. Amphilochius of Konia, in which he describes a martyrium which he intends to erect at Nyssa, and begs St. Amphilochius to send him skilled workmen to carry out his scheme.[3] The church was to combine the forms of octagon and cross, it was to be made of brick and vaulted. St. Gregory specially asks for workmen accustomed to build uncentred vaults, giving as his reasons for choosing that particular kind of roof the absence of wood in his country and the fact that he has heard that such vaults are stronger than all others. There was no interior arcade; eight columns were placed close to the interior angles of the octagon but the drum of the dome rose directly from the walls themselves.[4] Strzygowski at once recognised the close relationship that must have existed between the church at Nyssa and No. 8. At Maden Sheher the arms of the cross are placed over the angles instead of in the sides of the polygon, and this leads to the singular arrangement of windows over the angles; the building is on a smaller scale than that described by St. Gregory, and lacks the colonnade

[1] Hübsch gives a reconstruction (Altchristliche Kirchen, pl. 19), but Strzygowski points out that he has been guided too much by the baptistery at Florence and too little by Ravenna, the space between the arcade and the wall being consequently too narrow. [2] Dehio, p. 40.

[3] Frequently quoted; the best analysis of it is Kleinasien, p. 71. See, too, Friedenthal: Das Kreuzförmige Oktogon. Calder has found a very important Christian inscription at Laodicea in Lycaonia. The bishop describes a church which he rebuilt between 320 and 340 A.D., and enumerates the surrounding equipment of stoai, tetrastoa, paintings, *κεντήσεις*, a water tank or aqueduct (*ὑδρεῖον*), and a propylon. The Bishop of Laodicea's tetrastoa should be compared with Gregory of Nyssa's peristoon, his zographiai with the latter's graphai, and his propylon with Gregory's eisodos. (See Ramsay: Luke the Physician and other Studies, p. 339.)

[4] See Keil's reconstruction of plan and elevation. Kleinasien, pp. 74 and 76. Friedenthal substitutes engaged piers for the eight columns: *op. cit.*, Fig. 1.

which he desired to set round his martyrium.[1] Possibly a couple of hundred years had elapsed between the erection of the two churches ;—I set No. 8 in the earlier Maden Sheher group, *i.e.*, before 800, both on account of its plan and because of the evidence given by mouldings and masonry. The Christian architects of Anatolia were by this time masters of a thoroughly developed local art, and the pious impulse which may have led them, during the first century of their activity, to keep a watchful eye on the creations of Constantine was forgotten. No. 8 stands unique among the ruins on the plateau; that it should continue to be unique is of small consequence. There is reason for satisfaction that at any rate one example of a type which, judging from St. Gregory's letter, must have been familiar to the builders of the fourth century, should have escaped destruction.

Kaufmann has compared the baptistery of the church of St. Menas in the Mareotis desert with No. 8, remarking that the plan which he has laid bare is the same as the one projected by St. Gregory minus the cross-shaped arms,[2] but Baumstark has pointed out with justice that the baptistery of St. Menas falls into another group, the group represented by Ezra and Bosra in Syria.[3] The pre-Christian prototype is to be found in the Hellenistic palace or private house; there are examples of it on the Palatine and in the Villa of Hadrian.[4] Another church in Syria recalls the cruciform-octagonal plan of No. 8, Wiran Sheher on the confines of Mesopotamia.[5] Puchstein, who fur-

[1] *Cf.* the columned atrium of the SS. Apostles Constantinople, Eusebius: Vita Const., iv., 59. The absence of columns is not remarkable in the Kara Dagh, where they never appear except in the shape of the short thick double column. It is noticeable that the workmen whom St. Gregory wished to import from Iconium were to cut the columns for his building. There is evidence that the workmen of Isauria were renowned for their skill. Holl: Hermes, vol. xliii., p. 242.

[2] Ausgrab. der Menas-Heilig., Zweiter Bericht, p. 75.

[3] For plans and elevations see De Vogüé: La Syrie Centrale, p. 64 and plates 21 and 22. Both churches are dated in the early part of the sixth century.

[4] Röm. Quartalschrift, 1907, p. 12. The newly excavated octagon on the N. side of the Ephesian double church seems to belong to the same family (Jahreshefte der oes. arch. Inst. Beiblatt, 1907, p. 74).

[5] Kleinasien, p. 96.

nished Strzygowski with the plan, places it unhesitatingly in the sixth century; Strzygowski sees no reason against placing it in the fifth or even in the fourth century. It differs from the Anatolian example in having tribunes.

No. 10 belongs to a series that can be better illustrated by existing monuments, though no doubt the larger proportion has vanished. Besides Constantine's octagon at Antioch, two such churches are known to have stood in and near Constantinople, St. Michael on the Anaplus built by Justinian,[1] and St. John the Baptist in the Hebdomon built by Theodosius II. Asia Minor is comparatively rich in existing examples. The building at Hierapolis already mentioned is pre-Christian;[2] on the plateau there is a church at Ulu Bunar in Isauria where the exterior plan is octagonal as well as the interior arcade, which rests on eight round columns,[3] and a church at Soasa recently published by Rott.[4] In the latter only the arcade and its superstructure remain; a portico of columns seems to have surrounded it, carrying a roof of beams, the holes for which are visible on the wall of the central octagon. The inner arcade stands on six-sided piers, each of which forms an angle of the octagon. Another example is given by Hübsch, taken, according to him, from Derbe.[5] Smirnov, who first planned No. 10, was inclined to believe that Hübsch's church at Derbe was identical with the Kara Dagh church. Sir W. Ramsay and I found on clearing out No. 10 that the plan resembled that of Hübsch even more closely than Smirnov had reason to believe, and we are both persuaded that the two are one and the same. The site of Derbe was not fixed until a few years ago when Sterrett identified it; Leake held that it was at Bin Bir Klisse. Hommaire de Hell gives one more building of this group at Polemona between Trebizond and Kerasund.[6] The mausoleum of the

[1] Hübsch, pl. 35.

[2] Rott reports that it is even more remarkable than the plan given by Hübsch would represent it (Zeitschr. f. Geschichte der Architektur, 1908, vi., p. 145). In the monograph on Hierapolis (Ergänzungsheft, iv., of the German Jahrbuch, p. 15) it is passed over with a remark on its non-Christian character.

[3] Kleinasien, p. 91.

[4] Kleinasiatische Denkmäler, p. 249.

[5] Altchristliche Kirchen, pl. 35.

[6] Voyage en Turquie et en Perse, iv., p. 393, pl. 22. Also Atlas, pl. 31.

Apostles Symon and Jude at Babylon must have been another example.[1]

The octagonal form is common in Armenia. At Ani it is found frequently;[2] at Edgmiatsin a singularly interesting variant has recently been excavated, the martyrium of St. Gregory, which dates from the year 650.[3] It shows the same tendency towards an interior cross-shape which St. Gregory of Nyssa postulates as a characteristic of his building.

Taking the churches of the whole Asiatic group together it will be seen that though they present striking similarities they are yet markedly individual. I have described the general attributes of the architecture of the plateau in almost the same terms and drawn from the fact the same conclusion as that which Strzygowski has applied to the octagon. The details are worked out freely by local builders, but the inspiration is derived from a common source, and that source is to be looked for in the architectural traditions of Asia. The centralised church, whether it be octagonal or cross-shaped (and the two are very closely related), is strongly Oriental and appears in Europe under Oriental influence.[4] If I were to draw the definition of its character in Asia Minor yet closer I should say that the peculiarities presented there are applicable to all the architecture of the plateau and shared by Armenia. Chief among these are

[1] Garrucci: Storia dell' Arte Christiana, vol. i., p. 24.

[2] Brosset: Les ruines d'Ani. Good illustrations of the chapels of St. Gregory and of the Redeemer are given by Lynch: Armenia, i., Figs. 85 and 88.

[3] Strzygowski (Der Dom zu Aachen, p. 33) compares it with Charlemagne's church at Aix, which belongs certainly to this group, and may well be due to direct Armenian inspiration.

[4] Ravenna, Aix, Germigny-des-Pres (see for the last two, Strzygowski: Der Dom zu Aachen). See too Dehio (Zeitschr. für Geschichte d. Architektur, 1907, ii., p. 45) for the churches at Wimpfen and Segovia—a short article, but one worthy of attention. He seeks for a Syrian prototype in Butler's two churches at Fa'lul and Mir'ayeh, the latter belonging to the sixth century. But the Syrian churches must be looked on as representatives of one branch of a great Asiatic group which admits of infinite local variations. Ancient Architecture in Syria, Division 2, Section B, Part 2, pp. 70 and 95.

the use of stone as building material, the octagon at Nyssa being the only one in which brick was employed. No less remarkable is the absence of tribunes, to which No. 10, a church belonging to a late period, and the octagon at Nazianzos are exceptions.

5. The Vault

It is no longer necessary to insist upon the Oriental origin of arch and vault. Built in brick or stone, either by means of corbels or with voussoirs, the vault has been found in Egypt as early as the sixth Dynasty.[1] But in Egypt the vault was used only for tombs and subsidiary edifices, in Mesopotamia it was a constituent element of all architectural construction.[2] Here, as in Egypt, the corbel was earlier than the voussoir,[3] and the corbelled brick vault of Mugheir exemplifies a scheme which was known to the architects of Chaldaea.[4] The excavations of Place established the existence of brick vaults at Khorsabad, some of which had been built with a centering and some without; on a smaller scale the vault appears frequently on water conduits and on tombs.[5] In Mesopotamia the use of brick was dictated by natural conditions, in Asia Minor it was equally inevitable that the vault should be translated into stone. Choisy was of opinion that Asia Minor did not use the vault till after the introduction of brick architecture, that is, according to his theory, till the Roman period, but I do not think this view is tenable.[6] It is more likely that the stone vault in

[1] Stone vault at Abydos ascribed by Mariette to the sixth Dynasty (Perrot and Chipiez: Histoire de L'Art, i., p. 531); brick vault of the Campbell grave (*ibid.*, i., p. 317); brick corbelled dome at Abydos, eighteenth Dynasty (Choisy: Histoire de l'Architecture, p. 19); stone corbelled vaults at Deir el Bahri, eighteenth Dynasty, and Abydos, nineteenth Dynasty (Perrot, i., p. 536); brick vaults of the Ramesseum (Choisy: Architecture, p. 22); stone vaults with voussoirs of the Serapeum, time of Darius Hystaspes (Perrot, i., 531). There are numerous other examples.

[2] Perrot, ii., p. 143. [3] *Ibid.*, ii., p. 144. [4] *Ibid.*, ii., p. 232.

[5] *Ibid.*, ii., p. 239; Mitteilungen der Orient. Gesell., No. 40, p. 31.

[6] L'Art de bâtir chez les Byzantins, p. 155.

some early form was known to the first monumental builders of Anatolia. The stone corbelled arch exists in the S. gate of the Hittite city of Boghaz Keui,[1] while the Lydian tombs and those at Assarlik[2] on the S. coast, together with the tomb of Tantalus near Smyrna, show the corbelled vault.[3] We have the true barrel vault of stone voussoirs in the gallery of the tomb of Alyattes,[4] and Greek builders only carried on the tradition in the substructures of temples, theatres and baths.[5]

I have already had occasion, in dealing with the barn church, to indicate the history of the barrel vault in Mesopotamia and the Syrian desert during the first centuries of the Christian era. The use of stone implied the abandonment of the convenient system of building without a centering. Though wood is not abundant on the Anatolian plateau, it is not entirely lacking; every mountain range bears a quantity of low scrub which develops in places into respectable trees. In the Kara Dagh there is what will pass in Central Asia Minor for a veritable forest of oak trees on the slopes S. of Mahaletch and another on the S.-W. face of the mountain near Kizil Hissar. There must always have been sufficient material for wooden doors, staircases, etc. (no need here for the stone doors and pierced

[1] Orient Gesellschaft, No. 35, Figs. 5 and 12.

[2] Perrot, v., pp. 317-18.

[3] *Ibid.*, v., p. 49. These tombs belong to the series of which the Treasury of Atreus at Mycenae is the most famous example. The tomb at Isopata, near Knossos, is the earliest instance yet discovered of the corbelled vault (Evans: The Prehistoric tombs of Knossos). See for the whole group Durm: Die Kuppelgräber von Pantikapaion, Jahreshefte d. ö. arch. Instituts, 1907, p. 230.

[4] Perrot, v., p. 272. The same process of evolution from the corbel to the vault took place in Etruria (Durm: Baukunst der Etrusker und Römer, p. 13). Delbrück states (Die drei Tempel am Forum Holitorium, p. 63) that the vault appeared at about the same time in Hellenistic and in Etruscan buildings.

[5] Æzani, Pergamon and Smyrna (Choisy: L'Art de bâtir chez les Byzantins, p. 21), Aspendos, Side and Sagalassos (Lanckoronski: Städte Pamphyliens und Pisidiens, i., pp. 92, 149, ii., 153), and many more. The great vaulted entrance passages to theatres are found first in Asia Minor (Dörpfeld: Das griechische Theater).

stone windows of the Hauran), as well as for centering beams. The vaults of the Kara Dagh are made partly of stone in fairly well-dressed blocks, and partly of concrete and rubble ; Nos. 1 and 4 may be taken as good examples of the stone vault, No. 16 of the concrete. In Nos. 1 and 5 the stone vaults are further supported by ribs set at wide intervals (nave of No. 1 and S. aisle of No. 5) ; these are a constant feature in the narthex vaults and were always built of finely dressed and fitted stones. They did not originate in a desire to simplify the question of centering—as at Hierapolis, Nîmes, etc.[1]—but have the same structural significance as that which they were to assume later in the mediæval architecture of Europe. Of a different nature are the transverse arches in the reconstructed aisles of Nos. 1 and 6. Here the concrete vault between the arches runs at right angles to the direction of the arch itself, a system exactly similar to that which is found in the Sassanian palace of Tag Eivan,[2] except for the fact that in the Persian example the ends of the vault are on the same level, whereas at Maden Sheher the vault rises towards the nave. The rising vault was familiar to Byzantine builders in brick, indeed it lent itself better than any other form to their desire to avoid centering ;[3] Strzygowski has already mentioned that it occurs at Aix ;[4] I have noticed that it is to be found at a much earlier date, executed in finely dressed stone, in the entrance galleries of the theatres at Perge and Sagalassos.[5] To how high a state of perfection vault-building was carried at an early period can be seen at Mahaletch and in the beautiful horse-shoed vaults of Hassan Dagh. There is a striking absence of the groined vault, and here again we seem to have one of the links that connects Central Asia Minor with Inner Asia, for the Persian architect was so anxious to avoid intersections that he was reduced to the clumsy expedient of raising one vault above

[1] Choisy : Architecture, i., p. 517.

[2] Dieulafoy : L'Art antique de la Perse, v., p. 80.

[3] For example, Mt. Athos where it is used to cover a staircase. Choisy : L'Art de bâtir chez les Byzantins, p. 44.

[4] Kleinasien, p. 226. [5] Lanckoronski, *op. cit.*, i., p. 55, and ii., p. 154.

another.[1] I have found but one example of the groined vault on the plateau; it occurs in the narthex of Tchangli Klisse, a church which must be dated about the tenth century.

The problem of the spherical vault was a more complicated one. The question to be solved here was not the roofing of an oblong chamber or passage where the curve of the vault could be set against a terminal wall, but how to construct over a square chamber a roof that must necessarily be rounded on every side. Just as the corbelled vault preceded the true barrel vault built with voussoirs, so the corbelled dome-like roof was the first solution of the dome. Set over a round plan it entailed no distinction between roof and wall, but with the square ground plan the wall began to emerge from the roof and to assume a structural individuality.[2] After the walls had been raised to the necessary height and a corbel stone laid over the corners had converted the original square into an octagon, it was open to the builder to complete his roof either by continuing the horizontal corbelled courses, or by setting a true dome of voussoirs over the octagon. The first method resulted in a high pointed structure with an interior ovoid curve and had the advantage of eliminating all centering, and even when the second was adopted, the centering required could be very largely diminished by holding to the elliptical curve in the lower part of the dome, so that the courses could be set in horizontal layers and lessen the width of the space where centering became necessary.[3] This last is the system adopted at Mahaletch.

Syria can show several varieties of the stone spherical vault

[1] Choisy: Architecture, i., p. 123. See, too, his comments upon the imperfect nature of the intersecting barrel vaults in Justinian's bridge at Sabandja. L'Art de bâtir chez les Byzantins, p. 21.

[2] Durm (Jahreshefte d. ö. arch. Instituts, 1907, p. 232) ascribes the square plan to Egyptian influence. In the tomb at Knossos vault and wall are one (Evans, *op. cit.*, p. 163).

[3] Phené Spiers: Architecture East and West, p. 75. In brick buildings centering could be entirely avoided by the elliptical dome. Choisy: L'Art de bâtir chez les Byzantins, p. 64.

belonging to the pre-Christian period. At Djerash and at Baalbek domes are placed upon a circular plan which offered none of the difficulties of the square substructure;[1] the corbel stone over the angle is used in the Kalybes at Shakka and Umm ez Zeitun;[2] at 'Amman the corbel is somewhat differently expressed, being formed by the first course of the dome itself;[3] Latakieh (third century) is a half-way stage between the corbel and the true pendentive;[4] at Djerash the true pendentive appears in a building of uncertain date, and again at Jerusalem in the sixth century;[5] in both cases the dome is continuous with the pendentives. (The German term for this type of dome is Hängekuppel, the French, calotte sur pendentifs; there does not seem to be any word in English. Choisy defines it as follows: the penetration of a single sphere by a vertical prism with a polygonal or square base. For the sake of brevity I shall use the term *continuous sphere*.) The step from Latakieh to Djerash is so small that it is surprising it should not have been taken earlier—the more surprising in view of the fact that the true pendentive, *i.e.*, the spherical triangle, is found in all its essentials in a tomb at Kertch 500 years before the Christian era;[6] most likely some of the links in the chain have now disappeared. The perfecting of one expedient did not imply the complete neglect of an older form; in the octagon at Ezra (sixth century) the corbel stone is still used as a basis for the dome;[7] so too over the square substructure of the Bizzos tomb at Ruweiha;[8] at Mylasa there is a belated example of the corbelled dome-like roof;[9] at Eregli the continuous sphere appears (in brick) in the ninth century.[10]

[1] Choisy: L'Art de bâtir chez les Byzantins, p. 60.

[2] De Vogüé: Syrie Centrale, p. 44 and pl. 6.

[3] Survey of Eastern Palestine, i., p. 44.

[4] De Vogüé, p. 75. Choisy (Architecture, ii., p. 18) calls it a corbel.

[5] Choisy: L'Art de bâtir chez les Byzantins, pp. 88 and 90.

[6] Durm: Jahreshefte d. ö. a. Instituts, 1907, p. 238. I am assuming that the date assigned is correct.

[7] De Vogüé, pl. 21.

[8] Butler: Architecture, p. 248.

[9] Choisy: L'Art de bâtir chez les Byzantins, p. 87.

[10] Strzygowski and Kalinka: Jahreshefte d. ö. a. Instituts, 1898, Beiblatt, p. 3.

With the four-sided dome (I am translating the French term *arc en cloître*, and the German *Klosterkuppel*) I am not here concerned. It never, to my knowledge, occurs on the Anatolian plateau and I can recall but one example of its use in Syria, the Prætorium at Musmieh. It necessitated centering and introduced the principle of intersecting vaults which the Inner East was always eager to avoid.

There is yet another means of setting the dome upon a square base, the Persian squinch, which continued to be employed in Armenia in the seventh and eighth centuries, and in Persia itself till the fifteenth.[1] Perhaps the best known existing instances of its use are in the palaces of Sarvistan and Firuzabad;[2] to these must be added the palace at Tag Eivan[3] and the small monument at Ferashabad.[4] It is to be seen in the coast lands of Asia Minor at Khodja Kalessi,[5] which is in my opinion earlier than the above-mentioned Persian examples, and in a very remarkable church at Khakh, near Diarbekr, which I place in the fourth or early fifth century. The description left by Choricius of the church of St. Sergius at Gaza points to the use of a squinch there also.[6] Other examples in Syria are found at 'Amman,[7] and in the great mosque at Damascus.[8] It passed over into Egypt, where it was unknown to antiquity, and is used in the monastic churches of Deir el Ahmar and Deir

[1] Dieulafoy: L'Art antique de la Perse, iv., p. 10. The squinch is constant in the churches of the Caucasus (Materialy po archeologii Kavkaza, 1893, pl. 24, 30, 38, 39, 43, 1894, pl. 31).

[2] Dieulafoy, vol. iv.

[3] *Ibid.*, v., p. 80.

[4] *Ibid.*, iv., p. 77.

[5] Whether Khodja Kalessi was covered with a dome or no is a disputed question. Rott has recently expressed himself decidedly in favour of a dome (Zeitschrift f. Geschichte der Architektur, 1908, vi., p. 160). I have not seen the church, but judging from Headlam's publication (Supp. Papers of the Hell. Soc., ii.) I should say that the many analogies it offers to buildings in Central Anatolia are all in favour of the dome.

[6] Millet in the Rev. Archéol., Jan. 1905, p. 100.

[7] Strzygowski: Mschatta, pl. 12.

[8] Choisy: L'Art de bâtir chez les Byzantins, pl. 21. The squinch is indeed typical of the early art of Islam.

el Abyad.[1] Central Asia Minor can show it at Ancyra, where it is employed in combination with pendentives in a manner that recalls the Persian palaces,[2] and again at Sivri Hissar. It is found in Italy in the fifth century at Naples (baptistery), and in the sixth at Ravenna (S. Vitale),[3] and it recurs in Greece in the eleventh century, in connection with the system of an eightfold support to the dome (Daphni).[4]

It is clear that the corbel and the squinch were the earliest methods used in regions that fell under Persian and Mesopotamian influences for effecting the transition from the square to the circle. The spherical triangle of the true pendentive is a development due in all probability, as Millet suggests, to the ingenuity of Greek builders,[5] and it is not unlikely that it was first employed in brick architecture, for which it is peculiarly suited. The continuous sphere has been traced from pre-Christian into Christian times along the valleys of the Maeander and the Hermus,[6] it is found at Constantinople in the age of Constantine,[7] it passed in the same century to Ravenna where it was used in the tomb of Galla Placidia.[8] The stone dome is essentially Oriental ;[9] it is nowhere better exemplified than on the Anatolian plateau, but here, as in other matters, the Asiatic system of construction obtained ; the corbel and the squinch, not the pendentive, are the prevailing forms.

[1] De Bock: Matériaux.

[2] Wulff: Koimesiskirche, p. 52. He places the church in the eighth century.

[3] Bertaux: L'Italie Méridionale, p. 40.

[4] Wulff: Koimesiskirche, p. 136. [5] Rev. Arch., Jan. 1905, p. 102.

[6] Choisy: L'Art de bâtir chez les Byzantins, pp. 158-60.

[7] *Ibid.*, p. 152 and pl. 13.

[8] According to Dehio and Bezold. Friedenthal maintains that the roofing of the central chamber is effected by an intersecting barrel vault (Das kreuzförmige Oktogon, p. 56). Choisy has pointed out how hesitating were the attempts at the pendentive in pre-Christian Rome. In the temple of Minerva Medica a series of corbels is employed, the pendentive timidly expressed (L'Art de bâtir chez les Byzantins, p. 80). In the baths of Caracalla the pendentive is confused with the four-sided dome (Architecture, i., p. 527).

[9] Choisy: L'Art de bâtir chez les Byzantins, p. 60.

The corbel is used in the two older domes that yet stand in the Kara Dagh, Mahaletch and No. 9; the pendentive appears in the late memorial chapel, No. 12, where the centre of the cross was probably covered by a continuous sphere. It is scarcely possible to conceive that any other method than the corbel was employed in the octagon No. 8, and the evidence afforded by the octagon at Soasa bears out this conjecture.[1] The rectangular corners of No. 39 suggest the same procedure; of the cruciform at Viran Sheher enough remains to make certain of the absence of pendentives; the rectangular corners imply a corbel or a squinch. So far as my experience goes the pendentive is not known on the plateau till towards the tenth century—No. 12, Tchangli Klisse and Irkhala Dere, possibly a little earlier at Miram. Sir W. Ramsay inclines to the ninth century for No. 12 (inscription No. 28). Rott states that he found an example of the continuous sphere at Tomarza.[2] Its existence at so early a date in the centre of Asia Minor was a surprise to me; I visited the church myself in 1909 and found that Rott's statement is not correct. The dome has fallen, but the four corbel stones, set across the angles of the rectangular substructure, are all in place and the construction is therefore the same as that used in the oldest Kara Dagh domes. I shall, shortly, publish the photographs of Tomarza.

With regard to the squinches of Sivri Hissar it is interesting to observe that they were built on the system described by Choisy in the arched niches at Djerash and Musmieh.[3] Since no attempt is made at Sivri Hissar to pass directly from the square to the circle by means of the squinch, there is no need for the addition of pendentives which was observed in the Persian palaces and at Ancyra; the circle is accommodated to the octagon by setting the dome back behind the angles. The closest parallel to Sivri Hissar is the dome in the great mosque at Damascus. The squinch and pendentive are combined at 'Amman, a building which Strzygowski assigns to the twelfth or thirteenth century.

[1] Rott: Denkmäler, p. 252.

[2] Zeitschrift für Geschichte der Architektur, 1908, vi., p. 160.

[3] L'Art de bâtir chez les Byzantins, p. 74.

Finally it is necessary to examine the substructure of the dome and to determine the relation of the drum to the calotte. Choisy's classification was as follows :—

The continuous sphere he placed in the period before the sixth century.

About the sixth century (St. Sophia, Constantinople, is the earliest dated example) came the conception of the true pendentive, *i.e.*, a spherical triangle of which the radius is smaller than that of the calotte.

Towards the tenth century, under the Macedonian emperors, it became customary to separate the dome from the pendentives by interposing a drum or round tower (St. Bardias, Salonica, is one of the first dated examples).[1]

In this drum, I may add, it was usual to set windows.

How do the Anatolian churches that have been made known since the publication of his work in 1883 fall in with these rules?

Neither in Mahaletch nor in No. 9 is there a true drum; the dome begins immediately above the corbels and is not lighted by windows. In Nos. 8 and 39 there are indeed windows, but they are set in the walls of the square tower that upholds the dome beneath the corbel or squinch; neither building had a true drum in the sense in which Choisy used the word. Exactly the same arrangement was observed at Khodja Kalessi; the windows are in the square tower below the squinches, not in a round tower interposed between pendentive and dome. At Sivri Hissar the scheme is slightly different. The dome is lighted from the top by windows set between and immediately over the squinches. In the case of another church where the dome is set on squinches, St. Clement's, Ancyra, we have a clear instance of the absence of a drum. Texier[2] affirmed here the existence of the drum, but the photographs published by Wulff are an indisputable proof of his error.[3] Of two other churches in Wulff's group, St. Nicholas, Myra, and Dere Aghassi, it is impossible to speak with certainty, but his

[1] L'Art de bâtir chez les Byzantins, p. 96.

[2] Asie Mineure, i., pl. 71.

[3] Koimesiskirche, pl. 4.

view that here too the drum was fictitious seems the most probable.[1] Neither the churches at Skripu,[2] nor at Nicaea, nor at Nea Moni in Chios[3] (where the dome is set on squinches of the Daphni type), can be said to show the true drum; where there were windows they were placed in the curve of the dome as at St. Sophia, Constantinople, or beneath or level with the squinch or corbel; and Sta Costanza, St. Sophia, Salonica, and St. Irene remain the only examples of the true drum which can be assigned to an early period. It is to be noted that the drum of St. Sophia, Salonica, retains its square shape on the exterior, while the anxious care exhibited by the flying buttresses at the angles shows that the form was unfamiliar.

Finally at Tchangli Klisse, at Konia (St. Amphilochius) and probably at Irkhala Dere we find the drum as defined by Choisy, a tower round inside and polygonal without, separating the dome from the pendentives and broken by windows. There is no reason for dating these churches earlier than the Macedonian period.[4]

[1] For St. Nicholas, Wulff: Koimesiskirche, p. 76, and Rott: Denkmäler, p. 334. Rott is inclined to trust Texier who gives a low drum. For Dere Aghassi, Wulff, p. 66, and Rott, p. 308. Professor Strzygowski points out to me that Santa Costanza, Rome, has the true drum. So, too, has St. Irene, Constantinople (Gurlitt: Baukunst, pl. 6b). The type was therefore known in the fourth century, but in the Eastern Empire it does not appear to have been currently employed until the tenth. Kasr ibn Wardan has been shown by Butler to give a very curious example of transition. The central part of the church is covered with a dome on pendentives. Outside it presented the appearance of an octagonal tower supporting the calotte and lighted by eight windows, one in each of the sides. This tower is not a true drum in Choisy's sense; four of the windows are set in the pendentives themselves, the other four in the wall spaces between, on a level with the pendentives. The system is in reality exactly the same as that which is employed at Sivri Hissar, except that in the first case we have a pendentive and in the second a squinch (Ancient Architecture in Syria, Section B, Part I.).

[2] Strzygowski: Byzantinische Zeitschrift, 1894, p. 1.

[3] *Ibid.*, 1896, p. 140.

[4] This is not Strzygowski's opinion. He sees the drum as early as the year 380 in Gregory of Nyssa's letter (Kleinasien, p. 174). St. Gregory's words are: "Over these eight arches (*i.e.*, of the interior octagon) the walls

We have therefore to allow for a form of substructure concerning which Choisy had no information. Khodja Kalessi and No. 8 furnish examples of a square tower broken by windows that were placed below the corbel or squinch, and Sivri Hissar belongs to the same group though the tower is octagonal within and the windows are on a level with the squinches. This type is certainly early; it seems to have been replaced about the end of the ninth century by the round tower above pendentives which may have been introduced into Central Asia Minor from Constantinople.

In every case except No. 8, which was in ground plan octagonal, the exterior aspect must have been that of a square tower, with or without windows; the curve of the dome being concealed under a low pointed roof. In No. 9 and Sivri Hissar the original appearance is still perfectly evident. It is scarcely necessary to call attention to the two famous examples of the square tower which can be dated with more or less accuracy, the tomb of Galla Placidia, built between 417 and 450, and St. Sophia, Salonica, which belongs perhaps to the years immediately before the reign of Justinian,[1] or at latest to the years immediately after his death.

In tracing the history of the dome I have been occupied mainly with domes set upon a square base, and with the manner of adjusting the square to the circle.[2] But there is another and probably an earlier class of domes, to which No. 8 belongs, namely

of the octagonal chamber shall be raised four ells higher, out of consideration for the proper proportion of the windows that must be placed in it; from these walls will spring the circular calotte". Soasa and No. 8 correspond exactly with this description, but it is not the drum of Choisy's definition. The ruins of Üch Ayak demand careful examination, as Strzygowski is the first to admit. At Deir el Ahmar the system is that which has been described at Sivri Hissar; the windows are on a level with the squinches but the tower in which they are set is round inside, not octagonal. Unfortunately the calotte is modern.

[1] Kleinasien, p. 118.

[2] It is with intention that I have avoided reference to the relief discovered by Layard at Kuyundjik, Perrot, ii., p. 146. The evidence supplied by it is so scanty that it does not afford a basis for argument.

the domed building which is round or polygonal in plan.[1] Until we have some definite information as to an age of architectural development about which at present we know nothing, the age of the Diadochi—until we have searched the ruins of the Hellenistic cities of Syria and gathered evidence from the mounds of Seleucia on the Tigris, it will not be possible to deal with this important group of buildings. "Such an idea," says Holtzinger, writing of the Pantheon, "only took shape under the hands of masters who had fed their conceptions upon similar works of an older movement which had not previously influenced the architectural development of the occidental countries, to wit, the circular and domed buildings of the Hellenistic East. A man like Apollodorus of Damascus, the architect of Trajan and Hadrian, had to appear in order to realise such ideas in Rome."[2]

The foregoing analysis leads me to the following conclusions with regard to the Anatolian plateau:—

(*a*) The stone or concrete barrel-vault is typical of the plateau.

(*b*) The groined vault is an importation; it occurs seldom, and always in late churches.[3]

(*c*) The corbel and the squinch, the Inner Asiatic forms of dome setting, prevail.

(*d*) The pendentive is rare and of late date. It was probably due to the invention of architects on the Hellenistic coast and in Syria.

(*e*) The true drum on pendentives is a late form. I believe it to have been borrowed from the coast lands, where it was evolved.

6. Brick and Stone Architecture

The material used by the builders on the Anatolian plateau is stone; in this respect, as in many others, Asia Minor resembles Central and North Syria and Armenia. In the coast lands stone, being abundant, is still the prevailing material

[1] See Dehio, pl. 1.

[2] The Museums and Ruins of Rome, vol. ii., p. 141.

[3] It was used at an early date in the coastlands. Choisy gives an example from Pergamon, probably Attalid. Architecture, i., p. 518.

employed, though brick is found in the domes and pendentives of the churches at Dere Aghassi (the neighbouring church of St. Nicholas at Myra is wholly of brick), at Philadelphia and at Ayasoluk, as it is in Greece at Philippi,[1] at Daphni and at St. Luke of Stiris. Not infrequently bands of brick are laid in the stone walls (Dere Aghassi and Philippi), and the same practice can be observed on the plateau, especially during the last centuries of Christian art (Tchangli Klisse). At Kasr ibn Wardan in Syria brick is the preponderating material, but bands of stone are used together with stone lintels;[2] there is a less regular mingling of brick and stone in the walls at Skripu, Daphni, St. Luke, and many other churches in Greece.[3] So far as is yet known, only two churches on the plateau are built almost entirely of brick, Ancyra and Üch Ayak. St. Gregory, in his description of the martyrium which he intended to construct at Nyssa, mentions that it was to be of brick and uncut stones;[4] at Üch Ayak the core of the walls is of rubble and mortar, and six courses of stones were noted by Crowfoot above the arches of the W. façade.[5] Brick used with stone to simplify difficulties of construction (as in the dome of Dere Aghassi) is never to my knowledge found in Central Asia Minor; where it was used in stone buildings it was for purely decorative purposes (the three great monasteries at Deghile, and the churches at Tchangli Klisse, and Irkhala Dere). In every one of these it stands in connection with flat pilasters and blind niches.

What suggested the use of burnt brick to the architects of the plateau? Here as elsewhere it is necessary to look in the first instance to Inner Asia. The nations of Mesopotamia built mainly with sun-dried brick, but the superior qualities of burnt brick were not unknown there. It was used in places where the proximity of water would have caused the rapid

[1] Strzygowski: Byzantinische Zeitschrift, 1902, p. 473.

[2] Kleinasien, p. 121. Butler: Ancient Architecture in Syria, section B, part 1.

[3] Lampakis: Mémoires sur les antiquités chrétiennes de la Grèce.

[4] Kleinasien, p. 73.

[5] *Ibid.*, p. 34. Strzygowski compares with Üch Ayak the church at Rocella di Squillace (*ibid.*, p. 225).

destruction of sun-dried brick (quays of Assur) and as a protection at the foot of walls where the customary sheathing of stone plaques could not be employed.[1] Probably it was in the great Hellenistic cities, Ephesus and Antioch, that its merits as a building material for monumental constructions were first discovered.[2] From them it passed to Rome, where in the short space of time that elapsed between Vitruvius (who knew nothing of burnt brick in Rome) and Augustus, it sprang into favour, together, I may add, with the structural forms of Hellenistic architecture. "Ce n'est qu'au contact de l'Asie," says Choisy, "que les Romains paraissent avoir compris tout le parti qu'ils pouvaient tirer de l'argile durcie au feu, de la brique proprement dit. . . . Auguste se vantait d'avoir trouvé une Rome d'argile et d'avoir laissé une Rome de marbre; il eût exprimé d'une façon moins brillante mais plus juste le progres accompli sous son regne en disant qu'il laissait une Rome de brique."[3] While brick architecture passed westwards to Italy from the cities of the Diadochi, it travelled also into the interior of Asia Minor. There, indeed, it never ousted the native stone masonry, but for many centuries continued to be used side by side with it. Thus by a devious path the ancient building material of Inner Asia took its place in Central Anatolia, and with it came the decorative forms that it had been wont to assume in the lands of its origin.[4] These were used not only in brick but also in stone.

The breaking of wall surfaces by pilasters and blind niches is a custom immemorial in Oriental brickwork. I will not say that the presence of brick in many of the Anatolian examples of stone niching is due entirely to this fact, but it is nevertheless a curiously significant feature. There are, however, instances where the brick is absent from the stone niche. I may cite Yurme,[5] Ala Klisse on the Ali Summassi Dagh, and Fis-

[1] Deutsch Orient Gesellschaft, No. 27, p. 25.

[2] This is Strzygowski's theory: Kleinasien, p. 34.

[3] Architecture, i., p. 520.

[4] Vitruvius says that the palace of Croesus at Sardis was built of burnt brick—a direct borrowing from Mesopotamia? Durm: Etrusker und Römer, p. 13.

[5] Kleinasien, p. 170.

andün. In the last two the relationship to countless rock-cut façades is too striking to pass unobserved. I reproduce one of them, Ala Klisse in Irkhala Dere (Fig. 348), and the connection could scarcely be more strongly emphasised than here. It is not necessary to do more than allude to the Mesopotamian prototypes. The excavations of Loftus at Warka showed that the round pilaster and the recessed niche were both used in Chaldaean times.[1] Place found them at Khorsabad;[2] a system of shallow pilasters decorated the temple at Mugheir,[3] and are to be seen on a bas-relief representing a ziggurat found by Layard at Kuyundjik.[4] The tradition was carried on by the Persian builders at Firuzabad and Sarvistan. The rectangular panel is replaced by a blind arcade at Firuzabad;[5] at Sarvistan the walls are not niched, but the façade shows the same engaged columns set side by side that were observed at Warka and Khorsabad.[6] The façade of Ctesiphon, the locus classicus of the niche, is but a further elaboration of these motives.[7] In Central Asia Minor the same principle was carried on through the great ages of architecture, but almost invariably in stone. It is impossible to lay a section of the niching of No. 43 (Fig. 349), or of the church on Ali Summassi Dagh (Fig. 350), or an angle of the small cruciform in No. 44 (Fig. 351), beside the section from Khorsabad given by Place[8] (Fig. 352) and not to recognise that one and the same tradition inspired them all; the resemblance is equally marked between sections such as those of Tchangli Klisse (Fig. 353) and Firuzabad (Fig. 354).[9] The pilasters of Nos. 35, 43, and 44 go back to the Warka temple and appear in the small temple A at Assur, where the

[1] Perrot and Chipiez, ii., p. 257. Dieulafoy, L'Art antique de la Perse, iv., p. 46, copied and adapted from Loftus: Travels and Researches, pp. 172 and 188.

[2] Perrot, ii., pp. 258 and 261.

[3] Loftus: Travels and Researches, p. 129.

[4] Dieulafoy, iv., p. 48.

[5] *Ibid.*, iv., p. 44. Strzygowski has observed that buildings with flat roofs had rectangular panels, and buildings vaulted and domed had blind arcades.

[6] *Ibid.*, iv., pl. 3.

[7] *Ibid.*, v., p. 65.

[8] *Ibid.*, iv., Fig. 36.

[9] *Ibid.*, iv., Fig. 29.

recessed niche is also to be found.[1] The pilasters at Hatra, strongly affected as they are in their decorative motives by Hellenistic influence, are no more than a repetition of this very ancient Asiatic theme, and viewed from this aspect the pilasters on the enclosing wall of the Palmyrene temple of the Sun fall into their place in the Oriental sequence.[2] Turn to Ravenna and you shall find Assur re-echoed on the walls of the mausoleum of Galla Placidia just as clearly as upon the walls of Deghile. In a later age when the Seljuk builders brought with them into Asia Minor a fresh wave of pure Oriental tradition, the grouped engaged columns re-appeared on their splendid stone façades, and at the caravanserai of Sultan Khan the motive of Sarvistan is repeated with the utmost fidelity (Fig. 355).[3]

As a rule the arched niche is combined with multifold recessing, but the concentric arch is also found without recessing in Mesopotamia and in Egypt. Place demolished one of the gates of the palace of Sargon and ascertained that the arch was composed of three concentric layers of sun-dried bricks,[4] and the same construction existed at Khorsabad.[5] In Egypt where

[1] Deutsch Orient Gesellschaft, No. 22, Fig. 4.

[2] Dieulafoy, v., p. 17, for Hatra, and Andrae's publication, of which the first volume has appeared.

[3] I had the advantage, when I was at Kal'at Shergat (Assur) in the spring of 1909, of discussing the whole question of the niche with Dr. Andrae. While I think he would agree with the derivation of the shallow flat pilaster and recessed niche which I have given above, he does not believe that the single or double engaged column of Parthian, Sassanian and Christian work can be referred to the wavy outline of the Khorsabad façade (our knowledge of Warka is not very definite). He pointed out that such engaged columns as those of Firuzabad and Tchangli Klisse, for instance, retain the nature of separate columns laid against, but projecting distinctly from, the face of the wall; whereas the shallow curves of Khorsabad are not columnar in character. He suggested that the Parthian and Sassanian motive might perhaps be attributed to the tendency to imitate classical forms, though the engaged column was not actually used in precisely this manner on classical façades. Though I have left the paragraph as I wrote it, Dr. Andrae's argument seems to me to be sound; much, however, can be said for the Chaldaean or Assyrian origin of the triple grouped columns of Sarvistan and Sultan Khan (Fig. 355), so remote from classical tradition do they appear to be.

[4] Perrot, ii., p. 233. [5] *Ibid.*, ii., p. 235.



Fig. 348.—Ala Klisse, Irkhala Dere.



Fig. 349.—No. 43.



Fig. 350.—Ala Klisse, Ali Summassi Dagh.

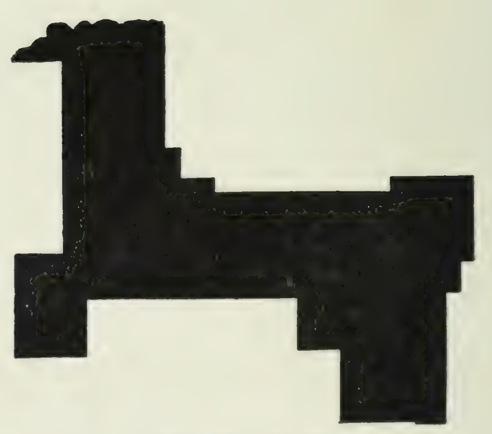


Fig. 351.—No. 44.



Fig. 352.—Khorsabad.

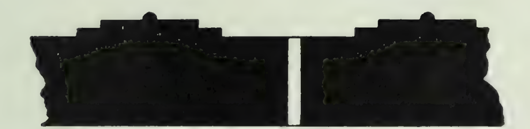


Fig. 353.—Tchangli Klisse.



Fig. 354.—Firuzabad.



Fig. 355.—Sultan Khan.

the niche is found mainly on stone sarcophagi and stelai,[1] though it is not absent from large buildings,[2] the concentric arch is frequently used without recessing in brick architecture.[3] At Firuzabad the number of concentric arches does not necessarily depend on that of the recesses; at Deghile triple concentric arches exist in connection with but a single recess (Nos. 35 and 44, no doubt also No. 45).

Dieulafoy has pointed out that the colonnettes and blind arcades of Ctesiphon are not purely decorative but fulfil a structural function, in this respect recalling their Chaldaean prototypes, whereas the Assyrian and Persian examples have no constructive value.[4] On the W. wall of No. 43 at Deghile the flat pilasters have a double significance; they serve as shallow buttresses besides breaking the monotonous surface of the wall. Wulff has insisted on the structural value of recessed concentric arches in Christian architecture, particularly on the substructure of the dome and round the windows;[5] on the W. façade they do little more than preserve a certain relationship to the inner structure, first of the naos (Koimesis, Nicaea, Theotokos, Constantinople, St. Mark's, Venice), then of the narthex only (Kahriyyeh Djami and Pantocrator, Constantinople). At Tchangli Klisse and Irkhala Dere the outer decoration is used on the transepts so as to emphasise the internal structure, but in No. 35 the shallow pilasters and brick concentric arches are as entirely disconnected from any internal feature as they are on the mausoleum of Galla Placidia or the baptistery of Neone.[6] On the whole it must be admitted that the wall space is treated pretty much as a flat surface to which the niche decoration is applied without reference to structural considerations, and the same is as true of Ravenna (with all deference to

[1] Sarcophagus of Mycerinus, Perrot, i., p. 509; a stele of the fourth dynasty, *ibid.*, i., p. 513. The development from wood to brick and stone is the same as in Mesopotamia.

[2] Perrot, i., p. 606.

[3] Campbell grave, *ibid.*, i., p. 317, Thebes, *ibid.*, i., p. 533, Ramesseum, *ibid.*, i., p. 534.

[4] Vol. v., p. 64.

[5] Koimesiskirche, p. 148.

[6] Rivoira: Le origini della architettura Lombarda, i., Figs. 47 and 58.

Rivoira, who claims for the architects there a more definite purpose)[1] as it is of Asia.

Rivoira ascribes the niche to the inventive genius of Ravennese builders, but the contention is to my mind totally untenable. The fact that the breaking of the wall surface by blind niches is found in Byzantine architecture first at Ravenna, in churches of the fifth and sixth centuries, is of no importance. The blind niche, as has been shown, is an Oriental motive of the highest antiquity, and the churches of Ravenna are too nearly akin to the architecture of the Christian East to admit of the possibility of the niche having been rediscovered independently of Oriental influence. The mausoleum of Galla Placidia and temple A at Assur stand at either end of a long historic sequence. Doubts are beginning to be cast on the assumption that the so-called Byzantine traits that are to be detected in the art of Central Europe should all be traced directly to Ravenna; the independent stream of Oriental artistic forms that flooded Gaul is now claiming the attention of archæologists.[2] Guyer ascribes the shallow pilasters on the apse of one of the ruined churches of St. Maurice to Gallic prototypes, backed by Oriental tradition.[3] The blind niches at Münster in Graubünden, whether they fall within the N. Italian circle of art, or, through Disentis, within the Irish,[4] are examples of the same Asiatic theme, for behind both schools lay the niche decoration of the ancient East.[5]

7. Monasteries

In dealing with the architectural features of monastic foundations I am confronted more painfully than elsewhere with the lack of proper material. The Central Anatolian monastery has not as yet been studied, and I am here presenting a series of plans which cannot at present be compared with similar

[1] *Op. cit.*, p. 8.

[2] Strzygowski was as usual the pioneer on this subject in the field of Christian art.

[3] Christliche Denkmäler der Schweitz, p. 43.

[4] Zemp: Das Kloster zu Münster in Graubünden, p. 22.

[5] Guyer, *op. cit.*, p. 72.

constructions in other parts of the country. In the face of a steadily growing interest in the early Christian architecture of Asia, travellers will not in future content themselves with the mere mention of monastic ruins connected with churches, but will be at the pains to measure and plan them, so that we may hope shortly to be put in possession of a more satisfactory body of evidence. The drawing of these plans is neither a pleasant nor an easy matter owing to the hopeless state of decay into which most of the monasteries have fallen. In many cases a correct plan cannot be arrived at without a certain amount of excavation; in others excavation is needed before any kind of plan can be attempted. The terms of our iradé did not permit me to dig in the Karadja Dagh or in Hassan Dagh, and there are doubtless interesting details which I have not been able to give, since I was obliged to be content with what remained above ground. Such surface work can only furnish a general idea of the monastic buildings and of their relation to the church, and must be corrected in the future.

It is not difficult to account for the ruined condition of the monasteries; the workmanship was so poor that they could not be expected to withstand the action of time. Added to this, the plans are so irregular that it is almost impossible to reconstruct them. (The only exceptions are the three great monasteries in Deghile, which were in all probability a part of the defences of the town.) These observations I am able to substantiate from another source. Guyer remarked at the monastery of Aladja a complete absence of architectural pretensions.[1] The same trait characterises all early monastic establishments. Till the seventh century most of the monasteries of Europe were built of wood.[2] The formlessness of monastic architecture was intimately connected with the absence of a strict monastic rule. "Tant que la règle et la discipline n'établirent pas une marche méthodique dans la distribution générale des bâtiments, dans

[1] Denkmäler des ersten Jahrtausends in der Schweitz, p. 73. He has not yet published the monastery. Rott visited the site a year before Guyer, but, without excavation, could do no more than plan the church and chapel (Kleinasiatische Denkmäler, p. 318).

[2] Schlosser: Die abendländische Klosteranlage, p. 1.

leurs attributions respectives, on dut voir une certaine hésitation, une incohérence inevitable dans toute création nouvelle, et l'architecture monastique ne doit dâter réellement que du jour ou la règle fit cesser toutes les incertitudes sur la direction qu'on devait suivre dans la vie en commun." [1] The forerunner of the ordered community was the solitary ascetic who was submitted to no law but that imposed by himself. As early as the third century hermits and anchorites had begun to people the deserts of Egypt and to seek refuge from persecution in the barren hills.[2] The fame of holy men, like St. Paul of Thebes or St. Anthony, attracted others to share their solitude, and the first monasteries were no more than a collection of huts and caves inhabited by anchorites. The early decades of the fourth century saw the gradual organisation of these colonies under the rule of St. Pahom, who has been called the father of Egyptian monasticism, and by the end of the century Shenute was directing the famous White Monastery at Atripe, enforcing vows of chastity and obedience upon his monks and ruling them with an iron hand.[3] Monastic institutions had already been extended into Palestine. Hilarion, a pupil of St. Anthony, retired into the desert between Egypt and Palestine, and a colony of monks sprang up round him—the first of the great Syrian monasteries.[4] In 357-58 St. Basil of Caesarea in Cappadocia visited the monasteries of Syria, Egypt and Mesopotamia and brought back the rules to his own country.[5] Rufinus, the author of the Historia Monachorum, began his work at the request of the monks on the Mount of Olives, who

[1] Lenoir: Architecture Monastique, p. vi.

[2] Schiweitz: Das morgenländische Mönchtum, p. 48. During the first three centuries of the Christian era it was common, especially in Egypt, to find men and women living in chastity and practising asceticism. They enjoyed a peculiar reverence, but no definite vows were taken by them, no special dress was worn, nor did they separate themselves from the life of the world. It was not until the persecution of Decius in 250 that the exodus into the wilderness began.

[3] Leipoldt: Schenute von Atripe, p. 44. See too Amélineau: Les Moines Egyptiens.

[4] Stark: Gaza.

[5] Kleinasien, p. 113. I visited this year (1909) a number of very early monasteries in the hills bordering Mesopotamia to the N. Tradition connects their foundation with the names of Egyptian monks.

were probably Latins,[1] and Palladius, a companion of St. Sylvia of Aquitaine (the Abbess Aetheria), describes in his Historia Lausiaca not only the monasteries of Egypt, but also those of Palestine, Syria, Asia Minor, and Europe.[2] The rapidity with which the monastic idea travelled and the influence it gained are the most astounding features in the whole history of Christian civilisation.

The early monasteries were of two kinds, the Laura, a loosely organised group of monks living in separate cells and reflecting not inaccurately the societies of hermits of the third century, and the Coenobium, where the bonds of the community were drawn more closely. In the West the Coenobium ended by absorbing into itself all monastic impulse, in the East the anchoritic spirit never entirely disappeared, and the Laura continued to hold its own side by side with the Coenobium.[3] The different character of the two types is architecturally well marked. The West goes forward towards the splendid developments of the Middle Ages, of which the ideal plan of St. Gall is the earliest existing representation, the East holds largely to the somewhat inchoate scheme illustrated by the Rossicon on Mount Athos, the true heir to such communities as that which occupied the scattered shrines and cells of establishments like Bawit in Egypt.[4] It must not, however, be forgotten that Asia, too, can show highly developed architectural conceptions. The monastery of Edgmiatsin in Armenia might in its present form rival any of the Carolingian plans, and though a great part of it is modern, much is probably rebuilt on older foundations.[5] In the light of the latest theories few people will be content to accept Schlosser's conclusion regarding the plan of Fontanella, where he disposes of the significant fact that the names of the various edifices were Greek by saying that Oriental influence is

[1] Schiweitz, *op. cit.*, p. 81. Rufinus was in Egypt twice between the years 374 and 385.

[2] *Ibid.*, p. 83.

[3] Schlosser, *op. cit.*, p. 2. See too Didron: Ann. Archéol., v., 14, "L'individualism et la vie matérielle sont plus développées en Grèce; la communité et l'intelligence plus cultivées en Occident".

[4] Clédat: Le Monastère de Baouit.

[5] For the plan see Stryzgowski: Byzantinische Denkmäler, i., p. 2.

unlikely.[1] But the anchoritic instinct was too deep-rooted to be overcome by precept or legislation. Even in the West we find the seventh century monastery of Abingdon adhering to the old custom of separate cells, though the Synod of Vannes had, in 465, declared against it,[2] and St. Bruno, as late as the eleventh century, went back to the principle of an agglomeration of hermits, each one living apart. In the East, Justinian legislated in vain against the system of separate cells, ordering instead common dormitories and refectories that the monks might watch over one another night and day; he was obliged to make exceptions for solitaries who lived within the precincts of the cloister walls.[3] The anchoritic life had taken on a new popularity under the influence of St. Simeon; the Empress Theodora was the first to honour the Stylites who fled to her palace in Constantinople during the monophysite proscriptions, while the Emperor listened with respect to their denunciations.[4]

Under such influences as these grew up and developed the monastic institutions which St. Basil had implanted in Central Anatolia, himself the author of the rule which is paramount in the East until this day.[5] Oriental monasticism was interwoven with the very life of the people;[6] to what extent it caught hold of the popular imagination can be seen in the Kara Dagh, where a large proportion of the inhabitants must have been in orders. No doubt Cappadocia and Lycaonia were the first Anatolian provinces to catch the infection of the time. In the former, the work of St. Basil was helped forward by his younger brother, St. Gregory of Nyssa, and his friend St. Gregory of Nazianzos; in the latter, Amphilochius, Bishop of Iconium, was linked by the closest ties of intimacy with the three Cappadocians. Here then we should have reason to look for the oldest Anatolian monasteries, and it is not by any means impossible that foundations such as those on Mahaletch and Kurshundju may go back to the earliest period.

[1] *Op. cit.*, p. 32.

[2] Schultze: Archäologie der Christlichen Kunst, p. 114.

[3] Nissen: Die Regelung des Klosterwesens im Rhomäerreiche, p. 16.

[4] Diehl: Justinien, pp. 519-22.

[5] Lenoir, *op. cit.*, p. 14.

[6] Nissen, *op. cit.*, p. 3.

I regard the small establishments scattered over the hills as clerical, rather than as purely monastic congregations. Monasteria clericorum are mentioned in the fourth century;[1] the great monastery at Tebessa, which is known to have existed in 484, is a salient instance of them,[2] and De Vogüé believed all the early Syrian foundations to be of the same character. The examples published by him offer most instructive points of comparison with the Anatolian. He describes them in general terms as follows: "Les édifices religieux tiennent, dans l'ensemble architectural qui nous occupe, la place que l'Église tenait dans la société qui l'a fondé et habité. Ils sont nombreux, construits avec soin, très en vue. Chaque groupe d'habitations possède son église ou sa chapelle; les centres plus importants ont plusieurs lieux de prière, auxquels se rattachent des dépendences ecclésiastiques. Le couvent proprement dit n'apparaît pas encore, ou du moins, s'il existe virtuellement depuis la constitution de la vie monastique, il ne possède pas, au point de vue architectural, l'organisation méthodique qu'il aura plus tard; les agglomérations qui entourent certaines grandes églises semblent moins destinées à l'usage de cénobites qu'à celui du clergé séculier et des fonctionnaires de tout ordre qui composaient sa hiérarchie."[3] Such clerical residences are to be found at Shakka, at Khirbet Hass and at El Barah;[4] Butler has contributed others at Babiska and Djeradeh,[5] and Renan found another near Sidon.[6] In several cases, more than one church is contained in the complex of buildings, but the closest parallel to the Kara Dagh custom is perhaps Tebessa where a trifoliate-apsed memorial chapel adjoins the basilica (*cf.* No. 6).[7] At the Council of Chalcedon in 451 special mention was made of memoria occupied by monks living under an archimandrite who was not recognised as equal in rank to the head of a monastery proper.[8] Nissen suggested that these

[1] Schlosser, *op. cit.*, p. 17.

[2] *Ibid.*, p. 18; see, too, Ballu: Le Monastère Byzantin de Tébessa, p. 3.

[3] La Syrie Centrale, p. 96.

[4] *Ibid.*, pl. 18, 22, 59 and 60.

[5] Architecture, pp. 131 and 153.

[6] Nebi Yunes: Mission de la Phénicie, p. 512.

[7] Ballu, *op. cit.*, p. 27.

[8] Mansi, vii., p. 61 *et seq.*; Conc. Chalced., c. viii.

memoria are no other than martyria served by a small body of monks or clerks,[1] and the hill-top monasteries of the Kara Dagh, the Karadja Dagh and Hassan Dagh bear out his view in the most striking manner.

De Vogüé has compared the Syrian monasterium clericorum with the Syrian house, the large hall of the one corresponding with the œcus of the other;[2] Schultze derives the Egyptian monastic plan from that of the Egyptian house;[3] in the Kara Dagh the parallel chambers of monastic buildings do not seem to have differed materially from those of the house. In the small memoria it is impossible to detect any very definite plan; in many of them the plan is dictated by the lie of the ground. Generally the whole group is enclosed by a wall, and within the precincts there is an open space in which is set the cistern that corresponds to the fountain in the courts of Mt. Athos. An open court containing a cistern, the church or churches, together with the clerical buildings, grouped round according to the exigencies of the site, and the whole surrounded by an enclosing of wall, helped out, when the ground permitted, by the natural rock: this seems to have been the general rule that guided the architect. Millet, following Lenoir, has declared the oldest monastic plan to have been square;[4] the fortified monasteries of Egypt (Deir el Abyad and Deir el Ahmar), Greece (Daphni), Mt. Athos and Armenia (Edgmiatsin), are good examples to prove his case; but the main end to be achieved was some easy method of enclosure and protection, and the shape which the wall assumed was primarily that which happened to be most convenient on any given spot. Where the ground was level a square enclosure was the obvious expedient, but that it was not by any means obligatory numerous examples in Syria and Egypt will show,[5] while in Central Asia Minor I have not

[1] *Op. cit.* p. 7, note 6.

[2] Shakka with 'Amrah; Syrie Centrale, pp. 52 and 58.

[3] Archäologie, p. 115.

[4] Lenoir, *op. cit.*, p. 46; Millet, Le Monastère de Daphni, p. 4.

[5] For instance, El Barah (De Vogüé, pl. 60) and Deir el Azam at Siout (De Bock, Matériaux, p. 88), in neither of which was there any particular reason why the plan should not have been a square.

seen more than one square monastery and very few exact parallelograms. The single instance of the square plan is a small monastery on the lower slopes of Hassan Dagh, half an hour above Halva Dere.[1] It is known locally as the Khan (Fig. 356). In the S.-E. corner of the walled enclosure there was a chapel, and I saw besides considerable traces of ruined chambers, only one of which was sufficiently perfect to plan. The chapel had a narthex and three apses, of which the two smaller lay in the thickness of the E. wall, as at No. 17, which it resembled. The apses were not horse-shoed (Fig. 357). The space between the central apse and the corner of the enclosing wall had been utilised by turning it into a small chamber approached by a door broken through the centre of the S. apse. The nave and narthex had been barrel vaulted, the narthex vault running from N. to S. The W. wall of the narthex was so much ruined that it was impossible to make out the door. There was an arched window in the central apse, the arch cut out of a single stone. (I have seen no other instance of this monolithic arch except in one of the ruined basilicas of Dagh Euren in the Karadja Dagh.) The window was carried through the enclosing wall which touched the apse. W. of the church there were the ruins of a rectangular chamber which had been covered by a roughly constructed dome-like roof, similar to those already mentioned at Yaghdebash. The corners of the square, which were anything but accurate, were corbelled over so as to form an octagon, and the process was repeated at the angles in the next two or three courses till an approximation to the circle was reached; the ovoid roof then narrowed upwards in successive courses. No attempt had been made to shape or face

[1] I owe thanks to the excellent old priest of Halva Dere, Pappas Nicolaus, for the valuable information he gave me concerning the ruins on the upper slopes of Hassan Dagh. Rott also mentions him with esteem, but does not seem to have profited by his knowledge further than by taking him as a guide to Viran Sheher. He put himself at my entire disposal, in spite of grave domestic troubles (his daughter was about to marry a Moslem which caused him great distress), and even offered to accompany me to the top of Hassan Dagh. I did not agree to the suggestion, feeling that 5,000 feet of steep mountain-side would be too much for his ancient bones, and to his evident relief accepted as a substitute an energetic young Turkoman.

the stones on the interior, and the projecting edges of the corbels were left quite rough. I have no doubt that these roofs represent a very early form of construction, a prototype of the dome, which continued to be used in unimportant edifices long after the principle of the true dome was understood and practised in large buildings. The enclosing wall of the monastery had four shallow pilasters on the exterior of each side (Fig. 358). The chapel was built of small stones carefully dressed and coursed. There were no decorations except a moulding at the spring of the apse arch, two cavettos under a band (Fig. 360A). The other buildings in the court had been very poor stuff. The enclosing wall was of small irregular stones, roughly faced and squared.

When the monastery court was exceptionally small the cistern might be placed outside the walls, as in No. 17, on the outskirts of Maden Sheher. Where the buildings covered the entire summit of the hill the outer wall was sometimes omitted. (Tchet Dagh, Maden Dagh, Mahaletch. At Asamadi there had undoubtedly been an enclosing wall, but the smaller of the two churches was outside it. Except at the Khan I saw no trace of an enclosing wall round any of the monasteries of Hassan Dagh.) As a rule the church formed one side of the court, and the monastic buildings lay upon another. In several cases I have noticed a small, solidly built square chamber lying detached from the rest of the complex. The most striking instance is in the group of buildings on the W. side of Maden Dagh which consists of a chapel with adjacent rooms and a detached room, as well built as the chapel and connected with the others only by a wall. The same detached room is to be seen at Asamadi, S. of the larger church; I found it at Yaghdebash also to the S. of the church, and in a small monastery lying on a high shoulder of Hassan Dagh called Boz Dagh (Fig. 359). It is an hour's steep climb above Süt Kilisse. This site is much ruined, but the plan of the single-chambered church can easily be made out. It had no narthex; the apse was stilted and horse-shoed within and polygonal without; the masonry was of good Hassan Dagh quality. The clerical buildings lay mainly to the N. and W. of the chapel; some of the walls were very thick, and the

Fig. 356.—The Khan.

Fig. 357.—The Khan, apses.

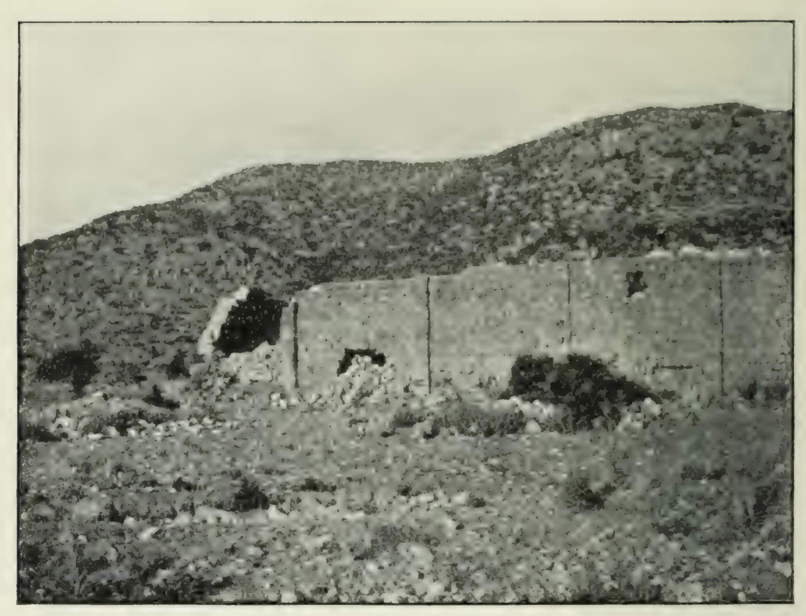


Fig. 358.—The Khan, W. wall of monastery.

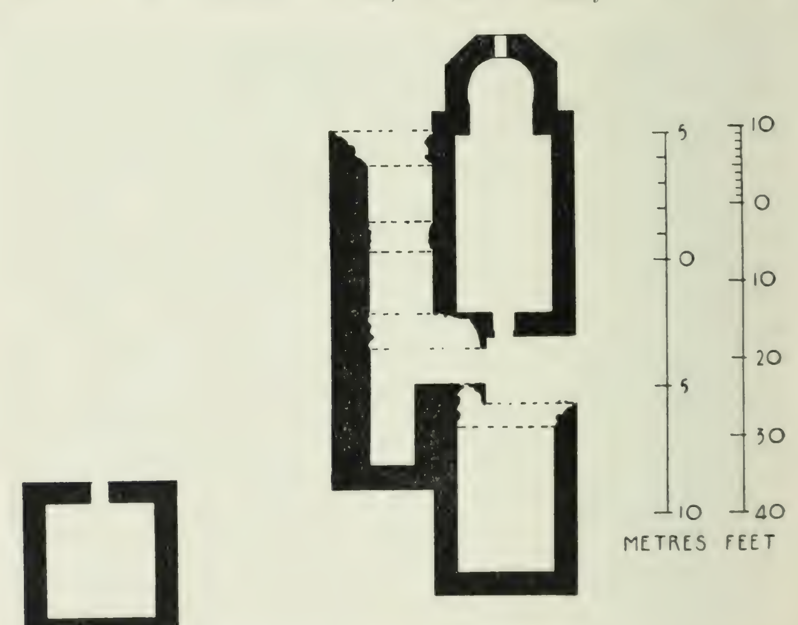


Fig. 359.—Boz Dagh.

construction was miserably poor. Farther to the N.-W. was a single room built in the same style. It had been covered with the usual dome-like roof, a good deal of which was still standing. Hayyat, on Ali Summassi Dagh, provides another instance of the detached chamber.

Under the head of memoria I should place without hesitation Mahaletch, Kizil Dagh, Tchet Dagh and No. 6; probably Asamadi also, though neither the church nor the chapel have the cross-shape of the martyrium. Maden Dagh is more doubtful. There were several small groups of ruins scattered among the brushwood on the hill-top, and the site suggested a little colony of ascetics, more in the nature of a Laura.[1] Hayyat was certainly a memorium, and so was Kurshundju. At the latter site the buildings outside the monastery imply that it was a famous place of pilgrimage.[2] Probably the high-placed chapels in Hassan Dagh were also memoria; none of them can have been more than monasteria clericorum.

There are two groups of buildings in Deghile which may have had a somewhat different history. In the first, which comprises Nos. 33 and 36, the kernel seems to have been a private house. This would not be in any way contrary to early custom, for it was not unusual to turn a private house into a monastery. St. Gregory is recorded to have converted his own house into a cloister for his monks; John of Ephesus tells a tale of seventy exiled Cappadocian monks who received a good and well-built hostelry as a gift, and used it for a monastery.[3] In the complex at Deghile, which, as inscriptions show, received so many additions during the course of half a century, we may have an instance of a private house standing in

[1] Aladja Kisle appears to be of the same character (Guyer: Denkmäler, p. 73). Probably the clearest picture of the early colonies of hermits is obtained in some of the rock-cut monasteries of Cappadocia, or in places like Tchangli Klisse, a masonry church surrounded by rock-cut cells. These give a curiously exact parallel to the old Greek illustration published by D'Agincourt (Histoire de l'Art par les Monuments, peintures, pl. 82) which shows a collection of caves with a chapel in the background.

[2] *Cf.* the guest houses at Turmanin and St. Simeon (De Vogüé, pl. 130, and p. 141).

[3] Schultze: Archäologie, p. 114.

close connection with a memorial church and ending by being absorbed into the uses of the latter. So too with No. 37. Here there seems to have been a house with a private chapel; the chapel bears a memorial inscription to one Paulus, presumably the owner of the house, which after his death may have served as a dwelling for the clergy who had charge of the chapel.[1] It is of course possible that the domestic buildings attached to No. 37 may have been intended from the outset as lodgings for clergy, but in the other case the architectural evidence forbids this hypothesis.

Finally we come to the three great monasteries in Deghile, Nos. 35 and 45, Nos. 32, 39 and 43, and No. 44. Here the coenobium appears in its developed form; the monks were lodged, as Justinian decreed, in long dormitories; the buildings were grouped round great rectangular courts and included large halls which would serve as refectories. In No. 45 there are traces of walls connecting the angles of the monastic buildings with the oblong structure at the S.-E. corner, which may have been a porter's lodge. This monastery was therefore divided into two courts, in one of which stood the church, while the other was surrounded, rather irregularly, on two sides by the dormitories of the monks. Block D I take to have been the refectory. In No. 43, which is the best preserved of the three, the scheme is more clearly apparent. I do not see any reason to doubt that the great S.-W. chamber with an arcade down the centre was the refectory. The niches which are to be seen in the walls of the dormitories are found to this day in most of the peasants' houses and serve the purpose of cupboards. In the long N.-E. chamber (lodging of the prior?) there is a larger cupboard with a stone shelf in the thickness of the wall which corresponds exactly to similar contrivances in Syria.[2] The great hall is a constant feature in monasteries of the fifth and sixth centuries—Shakka, St. Simeon, Assouan and probably Daphni.[3] In all cases it served as a refectory and a common

[1] For private chapels see Nissen, *op. cit.*, p. 12. They were so common that Justinian renounced the attempt to control their construction.

[2] For instance, at Amrah and Douma (De Vogüé, pl. 11 and 12).

[3] Millet: Daphni, p. 7.

meeting place. More difficult to explain is the rectangular domed building, No. 39, at the N.-E. corner of the buildings. It is a cross-in-square without an apse. The same structure recurs, but this time much more ruined, in No. 45. In both cases it is adjacent to a large oblong chamber with three doors; in No. 43 the two are not directly connected, but in No. 45 a door leads from one to the other. (I have hazarded the suggestion that the long chamber with three doors in No. 43 may have been the lodging of the prior. The same would apply to No. 45.) A similar building, rather larger than either of the other two, is found at Kurshundju, where it has a door opening on to the exterior as well as one leading into the court. A building in ground plan not dissimilar from these appears at Deir el Azam near Siout, and is described as a tower.[1] I am inclined to look on the three structures in Asia Minor as taking the place of a tower. At Kurshundju, where it is the largest of all the chambers, it may also have served the purpose of refectory.

A curious point arises with regard to the orientation of the two groups Nos. 35 and 45, and Nos. 32, 39 and 43. In both cases the monastery is not true with the church, but lies at an angle which causes the W. front to trend towards the N. In the second group the position is accounted for by the fact that the church is not of the same period as the monastic buildings; they would therefore represent an older orientation, not true to the points of the compass, which was corrected in the later church. Exactly the same conditions apply at Daphni.[2] But in the case of Nos. 35 and 45 the church and monastery were almost certainly built at the same time (the striking similarity of the architecture excludes any other theory), and we must conclude that the orientation of the monastic buildings was due only to the lie of the ground. In No. 44 it was the sharp falling away of the hill-side that dictated the angle at which the S.-W. wing was set. No rule was followed regarding the relative positions of church and monastery, and a glance at the plans of Khirbet Hass and El Barah will prove that the same observa-

[1] De Bock: Matériaux, p. 88. [2] Millet: Daphni, p. 4.

tion is true of Syria. Kurshundju approaches in general plan most closely to Shakka, but even here the internal arrangement of the buildings is entirely different. In the Anatolian monasteries, so far as I know them, there is no trace of the colonnade round the court, which in Syria foreshadows the cloister of mediæval Europe. The avoidance of the column in the architecture of Central Asia Minor, together with the extreme irregularity of monastic plans, are sufficient to account for the absence of the colonnaded court.

The parallel vaulted chambers of No. 43 show a remarkable likeness to those of a monastery upon the Cilician coast, Ak Kale (Fig. 360). Of this building I planned nothing but the small cross-shaped church already mentioned, but on a cursory survey I should judge the monastery to be later by several hundred years than No. 43. It may however preserve a monastic scheme of which No. 43 is an earlier representation. Any accurate work on it would require some digging and clearing away of brushwood. Sir W. Ramsay and Mr. Hogarth saw the remains of a large monastery on a hill below Ura not two days' journey from Ak Kale. I paid a flying visit to the place in 1905, but forgot to look for the monastery. Flying visits are little better than none, but that is a lesson which the traveller, confused by the enormous mass of new material which Asia Minor presents, and not seldom overworked, finds it hard to learn.

The memorial hill-top monastery was evidently an important feature in the history of Central Anatolian Christianity. It represents the transition from the pagan cults to the new religion, it rehabilitates the ancient mountain sanctuaries, and justifies their continued existence. For these reasons alone it would be natural to assign an early date to the hill-top foundations, and the evidence of the buildings themselves bears out the hypothesis. At a later age, perhaps not before the end of the sixth or the beginning of the seventh century, there appear in the Kara Dagh examples of the coenobium in the fortified monasteries that protected the village of Deghile. We hazard the conjecture that they were occupied by an order that combined the military with the religious life, a forerunner of the military orders of the middle ages, and that the important duties

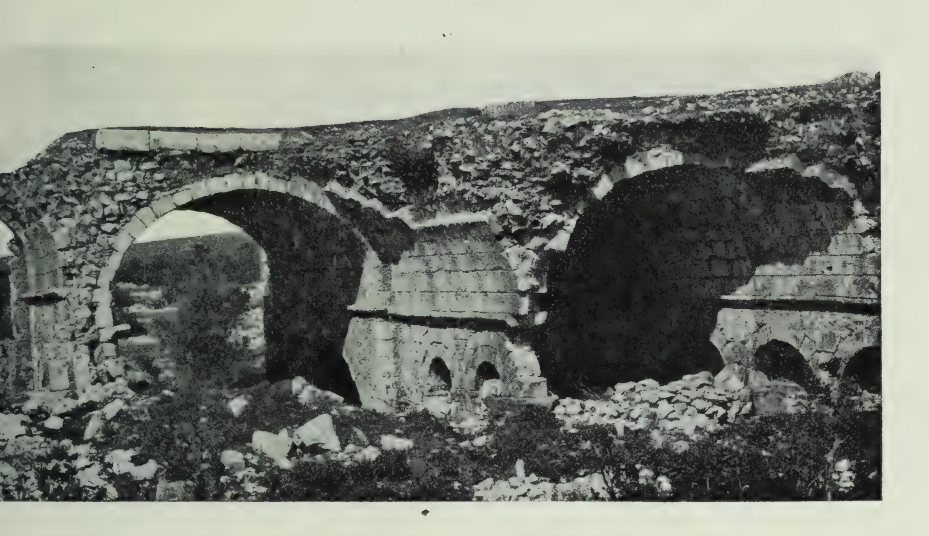


Fig. 360.—Ak Kale, monastery.

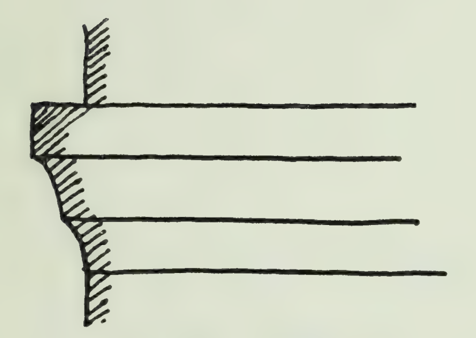


Fig. 360 a.—The Khan.

with which the monks were entrusted led to a stricter discipline and a closer organisation than that with which the older monastic fort in Maden Sheher, No. 6, seems to have been burdened, the two systems being reflected in the plans.

8. Mouldings and Ornamental Details

The effect produced by the architecture of the plateau depends to a large extent upon the use of mouldings. When stone is employed as a building material the moulded string-course and cornice are obvious expedients for the enlivening of flat wall surfaces; when the building material is brick the decoration will take just as inevitably the shape of pilaster and niche or of coloured frieze. It is not therefore surprising to find that in Mesopotamia mouldings were extremely rare,[1] while the stone-cut temples of Egypt were adorned with a deeply cut gorge differing widely from the forms natural to brick. The Greek builders developed and perfected the art of moulding, creating (mainly out of the elements of wood construction) a beautiful system of decoration suitable to stone architecture. Syria and Central Asia Minor, the stone-building countries of the Christian East, carried on the tradition, modified the antique motives, adapted them to new requirements and drew from them types distinct from the classical, but as satisfactory as they in contrasted variety of light and shadow. It is noticeable that mouldings were sparingly employed in Europe during the early centuries of the Christian era, and that such as are to be found are usually shallow and meagre in profile. Frequently intarsia or painting were used in their place, and it was not until the twelfth or thirteenth centuries that strongly accentuated profiles became general.[2] No doubt the common

[1] A heavy splayed or filleted cornice was sometimes employed; it appears in two reliefs from Kuyundjik (Perrot and Chipiez, vol. ii., pp. 142 and 143). Botta found a moulded cornice on the stone foundation of a building at Khorsabad which he believed to have been a temple; the profile is derived from that of the Egyptian gorge (Perrot and Chipiez, vol. ii., p. 256). Perrot cites the moulded plinth of a statue of the Sphinx discovered by Layard at Nimroud (vol. ii., p. 225), and with it brings his meagre series of Mesopotamian mouldings to a close (see, too, Dieulafoy: L'Art Antique de la Perse, vol. iii., p. 32).

[2] Dehio and Bezold, vol. i., p. 123.

use of brick in Rome and Ravenna was not favourable to the development of deeply worked mouldings, whereas the stone churches of the Middle Ages demanded the decoration proper to them. That the mediæval stone-cutters of Europe were indebted in this matter to the earlier creations of Syrian architects has long been acknowledged,[1] but the direct influence on Europe of Anatolian architecture, which enjoyed four centuries of vigorous existence after Syria had been devastated by the Arab invasion, has not been sufficiently considered.

It should be possible to gain a clear idea of the historical development of the mouldings that were employed in such profusion by the Christian builders of Central Asia Minor, but the question is complicated by the absence of dated monuments. In Syria the case is very different; a large number of buildings bear dated inscriptions and it is from the materials thus supplied that the study of Christian moulded ornament must begin. Butler summarises the Syrian development as follows: "We find that the ornament of the second century is inspired with classic sentiment and executed in classic style, even though in a few cases it may depart from classic lines in its more minute details. The third century shows a decided meagreness in the details of the few examples that we have. For the fourth century there is ample dated material, even more meagre in its details than that of the third century, which indicates a period not so much of decline or weakness, as of transition—a period during which the classic influence is greatly reduced and the native elements have not had time to develop. The profiles of lintels, architraves and cornices of this period are often composed entirely of straight lines which result in fasciæ and splay-faced mouldings. If a curve is introduced it is so shallow as to have little effect upon the shadows of the mouldings. In the main cornices alone curves held their place. The cyma is rare, being in most cases replaced by a shallow cavetto. But the transition from the classic to the Greco-Syrian was of short duration, lasting scarcely two hundred years, for, with the opening of the fifth

[1] Viollet le Duc under Profile. De Vogüé: Syrie Centrale, p. 22.

century, classic motives were revived in new forms and native elements appeared which began to give individuality and character to the ornament. The sixth century mouldings, without returning to classic forms, show all the depth and elaborateness of classic mouldings. Their treatment is broader, coarser perhaps, than in those of the second century, but their deep curves and variety of line give good shadows and an effect of great richness."[1] It would be a mistake to take generalisations of this kind too literally. For instance, Butler places in the fourth century a church at Khirbet Hass,[2] of which the cornice profile would fall, according to his definition, more properly into the fifth.[3] De Vogüé's drawings of details show how frequently mouldings characteristic of different periods were used on one and the same building,[4] and the cyma that Butler assigns to the sixth century appears in De Vogüé on buildings of the fifth century.[5] It would not be safe to infer that the rules that hold good in Syria can be transferred bodily to Central Asia Minor, though the general course of development seems to have been substantially the same in the two countries; nor is there any reason for supposing that the Anatolian mouldings

[1] Architecture and other Arts, p. 38. It is much to be regretted that the American expedition did not see fit to publish their work in greater detail. Sections or photographs of the ornament on all dated buildings might well have been given, and would have been of incalculable value. I fear that even the publication of the results of the second expedition, which promises to be considerably fuller, will not meet all requirements. In the section that deals with the important group of buildings at Kasr ibn Wardan, Butler speaks of string-courses with a foreign profile, but neglects to give any indication of what that profile was, save that which can be derived from its appearance in the sections of the church. The character of a moulding, depending as it does on delicate variations of curve, is lost in drawings on so small a scale.

[2] Architecture, p. 112.

[3] De Vogüé, Syrie Centrale, pl. 84. De Vogüé dates the church fourth to fifth centuries.

[4] See for example, pl. 116.

[5] Pl. 67. Butler does not mention this church, perhaps he would not consider it to be so early. My impression is that in the drawings in De Vogüé's book there is too great a tendency to give the later curve to all cymas that are not strictly classical in profile.

were derived from the Syrian, indeed marked differences preclude the idea of wholesale imitation. In both countries more or less the same prototypes were at hand, more or less the same conditions determined the selection of decorative forms and their subsequent modification.

The only example of a classic profile in the Kara Dagh is the cornice of the mausoleum; with this exception, I believe the mouldings on the Hassan Dagh buildings to be, as a whole, earlier than those of the Kara Dagh. In the former district the typical profile of string-course and cornice is either the cavetto projecting over a narrow band, or the same moulding with its lower edge rounded off so as to form a shallow cyma. The band above the curved member is not filleted or notched, except in one of the mouldings of the chapel on the summit of the mountain, and there the fuller curve of the cyma on the other moulding suggests a later date. I should be inclined to place mouldings such as those of the churches at Viran Sheher, Ana Tepessi and Sarigül not later than the fifth century, possibly not later than the middle of the fifth century. The characteristic ornament of the Hassan Dagh churches is the dentil or modillion, which is rare in Syria except on fourth century tombs. It was always a favourite motive in Asia Minor. Choisy notices that whereas there is but one example of its use on Athenian entablatures, it was admitted without reserve in Priene, Miletos, and other Anatolian cities.[1] It appears frequently on Lycian and Phrygian rock-cut tombs, and its relation to wood architecture is scarcely more clearly expressed on the Lycian imitations in stone of wooden originals (sarcophagus at Antiphellus, etc.) than it is on the church at Ana Tepessi or on Viran Sheher I. In the Kara Dagh the dentil is practically absent. Smirnov says he saw it on No. 3, I found it on one doorway in the Bash Dagh fortress (Fig. 244 *a*), and nowhere else.

The next step in the sequence of Anatolian mouldings is the development of the cyma. Whereas in the earlier forms the lower curve was so little accentuated that it is sometimes

[1] Architecture, vol. i., p. 364.

difficult to determine whether the profile was intended for a cavetto or a cyma, it now assumes the shape of an upright **S**, the convex curve having about the same value as the concave.[1] The cavetto does not, however, disappear. It is still used in important mouldings, in string-course and cornice, and the profiles of any one building exhibit in consequence a considerable variety (Mahaletch, Nos. 1, 6, 7 and 8). This variety gradually disappears, the cyma forms drive out all others, and we find churches like No. 3 where every moulding is a repetition of the same motive. At the same time the cyma changes its character, the concave curve lengthens, the convex flattens, and the result is a profile which I have called the pendulous cyma, corresponding to Syrian mouldings of the sixth century. Shortly after this period the history of Christian architecture in Syria was brought to an abrupt close by the Arab invasion. In Asia Minor the cataclysm was delayed for 400 years, though I believe that the later centuries exhibit little fresh invention in the matter of mouldings, but rather a working over of old types and a fairly eclectic use of them all, with perhaps a general tendency to flatter profiles. The splay face which is absent from all but the earliest work was sometimes introduced into the later, as in Nos. 10 and 12—in both cases it was covered, when used as an interior decoration, with plaster and perhaps with colour. On No. 15 the doorcap is nothing but a splay face diversified by notches; it is, I may observe, the only existing door cap in the Kara Dagh. Together with the frescoed splay face, there is a new decorative motive consisting of a shallow incised band that runs round square-headed windows and is turned off at right angles at the lower corners. It is not unlike Syrian work of the sixth century,[2] but I cannot date so early the two Kara Dagh churches in which it occurs, Nos. 10 and 12.

The continuous moulding carved over the doors and windows of No. 32 presents interesting problems. It appears in many churches on or near Mt. Argaeus, some of which I know only

[1] This is much the same profile as that of the moulding in the basement of the temple at Kingavar. Dieulafoy: L'Art Antique, vol. v., p. 9, from Flandin and Coste.

[2] Butler: Architecture, p. 182.

from Rott's publication of them. Not infrequently the continuous moulding is there combined with a system of shallow pilasters, for example in the Panagia at Tomarza and the church at Skupi.[1] Rott places these churches, together with those at Viran Sheher (he visited no others in Hassan Dagh), in the fifth century. The continuous moulding is extremely common in Syria but it is not found there till the sixth century, to which date belong "ornamental pilasters, ostensibly to carry mouldings".[2] Strzygowski has suggested that the continuous moulding was known to Assyrian art.[3] He quotes as an example a doorway at Khorsabad[4] where it is carried out not in relief but in enamel. We have it in relief in another doorway.[5] For reasons connected with the structural plan, I am inclined to think that in No. 32 the motive was not taken direct from inner Asia, but borrowed from the coast lands.

Of the cyma recta I know no example; the ovolo is extremely rare, the clearest instance of it being the string-course of No. 29. In spite of the massive masonry of this church I should hesitate to assign to it an early date. The filleted moulding found in it resembles fragments lying among the ruins of No. 15, where the ovolo also is present. I can recall only one other Anatolian example of a bold ovolo moulding; it is in the church at Dere Aghassi which Wulff places in the seventh century and Rott in the eighth.[6] Epigraphic evidence points to the pre-Arab period for Nos. 15 and 29; architecturally they are related to Nos. 4 and 5, and cannot be placed earlier than the very latest pre-Arab date. Arches are very frequently moulded in Syria, but in Central Asia Minor there is to my knowledge but one instance of a moulded arch, and there the decoration is laid quite flat on the face of the arch, just as it would be laid on a straight lintel. The church, No. 17, is miserably poor in workmanship, and I believe it to belong to a very late period.

[1] Kleinasiatische Denkmäler, pp. 180 and 192.

[2] Butler: Architecture, p. 182.

[3] Mschatta, p. 251.

[4] Perrot and Chipiez, vol. ii., p. 483.

[5] *Ibid.*, vol. ii., p. 237.

[6] Wulff: Koimesiskirche, Fig. 20 and p. 153; Rott: Kleinasiatische Denkmäler, p. 314.

In the group of churches in Maden Sheher to which we have given the earliest date, the mouldings are not only better cut than in the other buildings, but they are less uniformly simple. A bead is introduced below the cavetto in Nos. 7 and 8, and the beak-shaped string-course under the upper windows of No. 8 is a contrast to the customary curves. The mouldings below the arches of No. 9 are full of variety; the string-course below the dome is of an unusual profile. In all these churches the mouldings have character, they are not a lifeless repetition of familiar types. In the Karadja Dagh the mouldings are frequently decorated with incised patterns. An instance of this occurs at Kurshundju (Fig. 280 *c*); the mouldings scattered among the ruins at Dagh Euren are treated in the same way (Fig. 361). The zigzag of Fig. 361 *d* is found in the Kara Dagh on a string-course in No. 34 (Fig. 147 *a*), and again upon the lintel of a doorway. In the lower town there is an interesting fragment of decorated moulding in No. 4. There was nothing to indicate its original position, but the size of the block shows that it must have been used as the lintel or jamb of a door and the same zigzag pattern of pointed leaves is placed round the N. door of No. 12. The zigzag of leaves runs round the rim of the font in No. 15; Smirnov found it on the W. doorway of the church at Andaval, together with flutings and Greek crosses.[1] It must have been a motive widely used in the Hellenistic coast lands. It is not uncommon in Coptic art[2] and it appears on a bronze tablet discovered at Ephesus.[3]

A peculiar feature of the Kara Dagh churches is the projecting band that runs round the apse below the windows. In the earliest examples this band was left plain—Mahaletch and No. 1; on the exedra of No. 7 there is a plain band, and above it a moulded string-course. In No. 31 also the projecting band is unworked, but I am inclined to think that No. 31 was a direct imitation of No. 1 rather than contemporary with it; the mouldings upon it certainly seem to belong to a later period than those of No. 1. The string-course above the plain

[1] Kleinasien, p. 67; see, too, Rott: Kleinasiatische Denkmäler, p. 104.

[2] Strzygowski: Coptic Catalogue, pp. 85 and 124.

[3] Strzygowksi: Mschatta, p. 266.

band on the exedra of No. 7 is probably the earliest instance of a profile that was to gain considerable popularity in the Kara Dagh. On the exedra it consists of a concave member placed between two carefully filleted bands; we meet it again on Nos. 4, 5, and 32, and on Maden Dagh, but in each of these cases it is exceedingly shallow and the fillets are replaced by notches. A moulding of exactly this late type is found on the larger church in Mahaletch, not, however, in the accustomed place outside the apse, but on the inner cross-walls of the exonarthex where it is used as a cornice, a position it is essentially unsuited to occupy. I can only attribute its presence and place to makeshift work carried out during a later addition to, or reconstruction of, the western part of the church. When, in the group of churches which we place before the Arab invasions, the band round the apse is moulded, the profile chosen was either a cavetto with a splayed fillet below it (No. 8) or a cyma (Nos. 3, 6, and 36—the cavetto with the splayed fillet also occurs on the last-named church, but not on the apse). On No. 10 the distinction between the cyma or cavetto moulding and the concave moulding is lost, and we have a profile that belongs to neither class; on No. 15 the section of the string-course round the apse is a wavy meaningless line (Fig. 98 *d*).

The concave moulding is a common decoration for door frames, especially on the late churches of Maden Sheher. At Deghile it is almost universal, but cut, as a rule, deeper than in the lower town. There the door mouldings on churches of the period before the Arab invasions are of three kinds: a series of fillets, or an upright cyma, or a bead between cavettos. The simple filleted doorway (Nos. 3, 6, 7, 9, 11) is not, I think, to be found in the Christian work of Syria, or it is very rare.[1] Its origin is to be sought in wood construction; it is universal on the Lycian rock-cut tombs where the translation of carpentry into stone is clearly marked,[2] and, like the dentil, its use on the churches points to a continuous Anatolian tradi-

[1] It occurs in Phœnician work; Renan: Mission de la Phénicie, pl. 32.

[2] Dieulafoy: L'Art ancien, vol. ii., p. 32. Perrot and Chipiez, vol. v., p. 373 *et seq.*

tion. In the second class of door mouldings (Nos. 1, 5, and 6) the cyma corresponds to the profile used on the string-courses. In No. 5 the pendulous cyma of the window mouldings is repeated on the lintel and jambs (*cf.* also the W. door of No. 15, which is framed by a late cyma), while the upright **S**-shaped curve appears on the doors of Nos. 1 and 6. The third type is subject to considerable variations. On the W. door of the nave of No. 21 there are two well-marked beads (so too one of the lintels on Bash Dagh), while on the W. door of the S. aisle there is only one; on the N. and S. doors of the aisles the single bead is excessively shallow. The W. door of No. 37 was decorated with a shallow moulding, wider and more carefully worked, but essentially the same. In later work the bead became heavier and lost all delicacy of curve (No. 10, a lintel at Asamadi, very coarsely worked, and the W. door at Hayyat).[1] The Greek cross in a medallion is found on lintels of all periods.[2]

The lintels of No. 44 are unlike all others in the Kara Dagh, nor do I know anything with which to compare them. Though the work is rough and the relief low, the decorative effect is by no means bad. The brackets on either side of the outer door of chamber C seem to be a reminiscence of consoles supporting a door cap as at Khodja Kalessi,[3] but in No. 44 it is unlikely that there should ever have been a door cap, its place having been taken by a relieving arch with a brick filling in the tympanum, and the consoles have therefore ceased to possess any structural value. The cusp motive on the lintels of No. 33 I found again on two doorways at Tchauderlik which were in every way superior in workmanship to the Kara Dagh examples. The cusp is combined in one case with good deep mouldings and a dentil; in the other with a shallow label. The best preserved of the two Kara Dagh lintels bears a monogram instead of the ordinary Greek cross. The cusp appears in Syria in elaborately decorated doorways about the fifth century (the E. church at Babiska is

[1] The bead between two cavettos was one of the few mouldings known to Assyria. It occurs on the plinth of Layard's sphinx mentioned above.

[2] See Butler: Architecture, p. 32, note. [3] Kleinasien, p. 165.

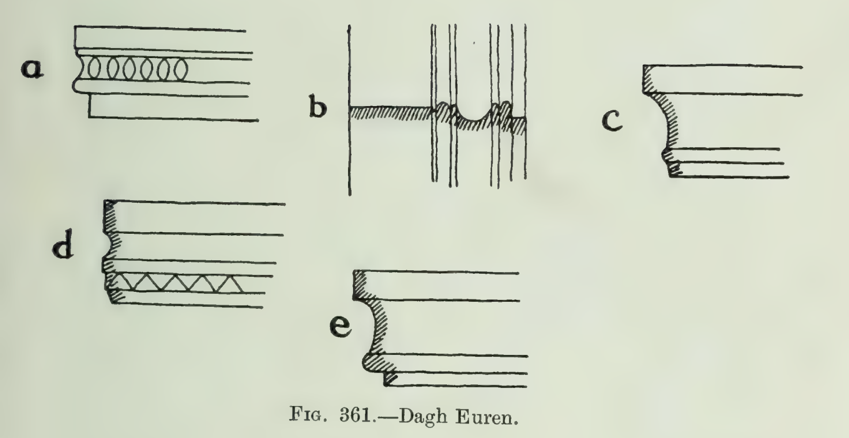


Fig. 361.—Dagh Euren.



FIG. 362.—Dagh Euren.

a good instance of it);[1] according to Butler it is common in North Syria and is found in simple forms above doorways and arches in churches of an earlier date. Outside the limits of Syria there is a fine example of the cusp; it adorned the outer face of the vault over the great hall at Ctesiphon.[2] I found no parallel to the remarkable doorway decorated with a vine scroll which was first published by Callander in Studies in the Eastern Roman Provinces (Fig. 362). The west door of the same church (at Dagh Euren in the Karadja Dagh) is decorated in a similar manner, but with birds seated in the vine on either side of the central medallion. The stiff spiral tendrils of the vine are different from anything that Rott has as yet published from Cappadocia.

The ordinary type of capital is a heavy impost block, roughly moulded. It is not difficult to see how such forms should have been developed out of those of the classical period. Texier's drawings of details from the theatre at Patara are specially instructive.[3] In Fig. 6 of his plate 184 we have something like a prototype of the narthex capital of No. 1; in Fig. 2 a capital not unlike those of No. 42, the elaborate decoration of the various members being omitted in the Kara Dagh. The shield-like motive found on many of the churches is more difficult to explain. I can only suggest that it is a degraded form of the bracketed capital, but if this is so the bracket has lost all constructive value. The double column fulfilled in itself the purpose for which the bracket capital was intended, by producing an oblong surface on which to place the superstructure. The capitals of the Kara Dagh were never required to support architraves, they were placed so that their greatest width corresponds to the depth of the arch, not to the width of the springer, and the bracket (if bracket it can be called) falls therefore upon the outer faces of the column, instead of upon the inner faces as in Persia and Syria. The narthex column of the larger church on Mahaletch has a double bracket—the base is bracketed upwards and the capital downwards and the two

[1] Butler: Architecture, p. 133.

[2] Dieulafoy: L'Art Ancien, vol. v., pl. 6.

[3] Asie Mineure, pl. 184.

meet in the centre of the column. Owing to the uncertainty that exists as to the date of the exo-narthex it is not possible to say whether this column formed part of the original building. In Maden Sheher the bracket exists only on one of the window columns of No. 5; at Deghile on the apse window columns of No. 32, and on all the larger columns of No. 31. More closely related to the true Syrian bracketed capitals are the narthex capitals in the church at Sarigül; it may be that we have here the earlier form of the shield-like motive of the Kara Dagh. The absence of more elaborately decorated capitals is very remarkable. Not one single version of the acanthus capital is to be found anywhere in the mountain, unless indeed an incised ornament of the face of a pilaster can be recognised as a form of the acanthus (Fig. 363). It belongs to the same family of ornament as that which decorates the column of a Phrygian tomb[1] and a stele found at Nineveh.[2] The pilaster illustrated in Fig. 363 stood among some ruins, possibly those of a house, a little way up the hill-side to the S. of Maden Sheher. One of the window columns of No. 5 shows perhaps a vague reminiscence of the Ionic volute, much further removed, however, from the classic original than the capitals in the nave of Tchukurken. One other antique motive appears in the Kara Dagh: the columns of No. 32 bear a band of flutings. Strzygowski has noted the prevalence in Asia Minor of the fluted band which was known alike to Greece and to Persia.[3] At Termessos,[4] Sagalassos[5] and many other Anatolian cities it is of frequent occurrence. St. Clement's, Ancyra, gives a good example of its use in Christian times.[6] Perhaps the best parallel to the columns in No. 32 is offered by a column in one of the Phrygian tombs.[7] In the Kara Dagh capitals the form of the flutings is different from any of the classical examples; the original character of the motive is better preserved on the W. doorway of No. 8 where the fluted band

[1] Perrot and Chipiez, vol. v., p. 142. [2] *Ibid.*, vol. ii., p. 270.

[3] Kleinasien, p. 171.

[4] Lanckoronski: Städte Pamphyliens und Pisidiens, vol. ii., pp. 54, 89.

[5] *Ibid.*, pp. 156, 160. [6] Wulff: Koimesiskirche, p. 58.

[7] Perrot and Chipiez, vol. v., p. 141.

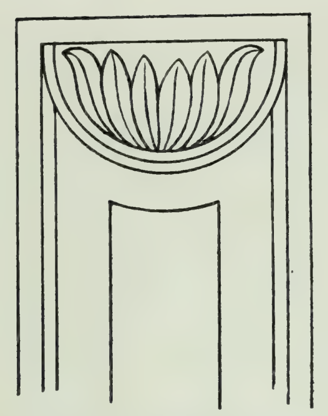


Fig. 363.—Kara Dagh.

Fig. 364.—Dagh Euren, capital.



Fig. 365.—Capital at Bagh Daile.

is accompanied by the bead and reel. Nothing at all resembling this doorway is to be found in any other parts of the mountain, but the bead and reel appears on the doorway of a church at Tomarza in Cappadocia.[1] I suspect that it is an indication of a comparatively early date. Rott has several examples of acanthus capitals from Cappadocia (for instance, the engaged capitals in the church at Tomarza) and I have seen them in the Karadja Dagh. In one of the churches at Dagh Euren Corinthian capitals and half-capitals are scattered among the ruins (Fig. 364). The acanthus leaf has lost the modelling of antique work; the wide lobes terminating in serrated points are laid rather flatly round the capital; only the turned-back crest of the leaf is salient. It is the acanthus mollis characteristic of the fifth century in Constantinople.[2] At the village of Bagh Daile, lower down on the same mountain, there was an interesting half-capital built into the wall of a house (Fig. 365). Here the leaves are laid quite flat upon the capital and depend for their effect upon the sharply shadowed background. It is an admirable example of the Oriental dark-pierced method (Tiefendunkel) of dealing with light and shadow.[3] The acanthus here represented has sharp and saw-like edges; it appears in Ravenna in the sixth century,[4] and should be compared with a block found by Strzygowski in the sea wall of the old Serai at Constantinople.[5] At Bagh Daile it is treated in much the same manner as in the earliest fragments of the monastery at Daphni.[6] The same leaf occurs on one of the capitals of St. Demetrius, Salonica.[7] The acanthus on the engaged capitals of the monastic church of Kurshundju is so much weather-worn that its character cannot be determined.

In the Kara Dagh, as a rule, the base of the column repeats the mouldings of the capital in the reverse order, but in No. 7

[1] Rott: Kleinasiatische Denkmäler, p. 186.

[2] Strzygowski: Goldene Thor, Jahrb. des k. d. arch. Inst., 1893, p. 10.

[3] Strzygowski: Mschatta, p. 273.

[4] Strzygowski: Die Akropolis in altbysantinische Zeit., Mitt. des k. d. arch. Inst. Athenische Abteilung, 1889, p. 279.

[5] Byz. Zeit., Oct. 1902, Plate 3, Fig. 11.

[6] Millet: Daphni, Fig. 2 (right hand fragment) and Fig. 3.

[7] Texier: Architecture Byzantine, pl. 22.

we came upon an instance of a base carefully worked with a distinctive profile (Fig. 54*f*) which can best be described as a dim reminiscence of the Attic base reduced to its simplest expression.

The three sculptured blocks which I saw in the mosque in Maden Sheher belong to a class of ornament well known in Greece and in the Anatolian coast districts. (The mosque has been pulled down, and two of the stones are now lost.) Rott found some slabs decorated in a similar style at Melegob; they were said to have formed part of a throne that stood in the church of St. Theodore, founded by John Tzimiskes, in the tenth century.[1] I think it probable that neither the Kara Dagh fragments nor the slabs at Melegob were executed by native stone-cutters, and the tradition that connects the slabs with a church founded by John Tzimiskes helps to confirm the supposition that either the sculptured stones were imported or the sculptors. The character of the native work is totally different; none of the decorations on lintels, mouldings or slabs bears any relation to these interlaced rhomboids, circles and diamonds set round a central anthemion. Such motives are typical of a large group of ornament which Strzygowski has shown to be common to Greece and the Asiatic coast lands in the tenth century.[2] The elements of this decoration may be dated several centuries earlier; they are to be found, for example, on stones that belonged to the first monastery at Daphni, which Millet places in the sixth century,[3] as well as on slabs and mosaics of St. Sophia, Constantinople.[4] Athens,[5] Mt. Athos,[6] Mistra,[7] St. Luke in Phocis,[8] Pergamon,[9] Magnesia,[10] Ephesos (I saw a fine block among the ruins of the double church, but it has

[1] Kleinasiatische Denkmäler, pp. 285, 286 and 294.

[2] Wiener Studien, xxiv., 2 Heft. [3] Daphni, p. 12.

[4] Salzenberg, pl. 35 and pl. 24, Fig. 3.

[5] Michel and Stuck: Die Mittelbyzantinische Kirchen Athens, Mitt. des k. d. Inst. Athenische Abt., 1906.

[6] Schlumberger: L'Epopée Byz., vol. ii., pp. 188-89.

[7] Strzygowski: Wiener Studien, cited above.

[8] Schultz and Barnsley: St. Luke, pl. 15, 22, 23.

[9] Strzygowski: Wiener Studien, cited above. [10] *Ibid.*

not yet been published), all furnish examples of the perfected style.[1]

The conclusions that may be drawn from the mouldings and decorations of Central Asia Minor point to a gradual disappearance of classical motives; in their place we find profiles unknown to antiquity, such as the concave moulding or the pendulous cyma, and decorations local and Asiatic in origin like the lintels of No. 44, or the cusp which is common to various schools of Asiatic architecture. In the selection of classical motives the Christian builders had carried on local and Asiatic traditions. They used the dentil as it had been used in Lycia and Phrygia, they took the flute and the filleted door-frame from their Anatolian forerunners; if they set the acanthus about their portals (Tomarza) they accompanied it with a fantastic scroll of animals which can be compared only with work that is to be found in the Syrian desert; if they used the vine (Dagh Euren) they gave it a character for which it would be difficult to find a parallel in classical art. They were not influenced by the decorative schemes evolved in the coast lands; the entrelac and the rosette are of such rare occurrence on the plateau that it is safe to regard the few blocks that exhibit them as of foreign origin—the blocks at Maden Sheher were certainly of foreign stone. The local ornament is distinct from them, just as the structure of the Central Anatolian churches is distinct from the structural forms adopted on the seaboard.

9. Fortresses

The southern side of the Anatolian plateau is guarded by a series of fortresses which has as yet received little or no attention from travellers. The mountain systems of the Kara Dagh, the Karadja Dagh and Hassan Dagh form a broken rampart lying more or less parallel to the range of Taurus from which it is separated by wide stretches of flat country. It was not until Syria was lost to the Eastern Empire that it became necessary

[1] I am not concerned here with the Western developments. See Cattaneo: L'Architettura in Italia, p. 247, and Rivoira: Architettura Lombarda, vol. i., p. 158 *et seq.*

to secure this inner line and to provide points of defence and refuge for the inhabitants of the adjacent regions. In the sixth century, when Justinian was carrying out his great scheme of fortification, the frontiers of the empire were far more widely extended. His fortresses were set along the confines of the Syrian desert, they watched over the fertile plains of Northern Mesopotamia and guarded the eastern parts of Asia Minor against the mountain tribes of Armenia; Antioch and Anazarba sufficed to hold the coast lands of North Syria and Cilicia, and the Anatolian plateau was not threatened from the south. Procopius records the fact that Justinian fortified the city of Cæsarea in Cappadocia, but makes no mention of any military works along the southern limits of Central Asia Minor.[1] The conquest of Syria by the Arabs profoundly modified all problems of imperial defence. The passes of Taurus became so many high-roads for raid and invasion; the unhappy province of Cilicia returned to its normal condition, that of a battleground whereon the lords of Syria and the lords of Asia Minor fought out their claims—not neglecting to harry the surrounding country, to demolish cities and exterminate the population in the course of the contest. Through the Cilician gates the Arabian armies burst into the flat country that stretches to the foot of Hassan Dagh, the Karadja Dagh and the Kara Dagh, and scarcely a year passed without a renewal of the struggle.

I take it that this was probably the moment when most of those fortresses were erected that now stand in ruins upon the southern hills. I have climbed up to a considerable number of these sites—not without labour—but no doubt there are still several which have been overlooked. Above Tchukurken, on a western spur of Hassan Dagh, stands the great fortress of Kechi Kalessi which was already well known. Another Kechi Kalessi occupies a high peak near the south-west end of Arissama Dagh, which is an outlying rampart of the Karadja Dagh. On the main ridge of the Karadja Dagh there is a curious castle called

[1] Sir W. Ramsay believes that Justinian set fortresses along the main military road as well as on the frontiers of the Empire (Historical Geography, p. 75).

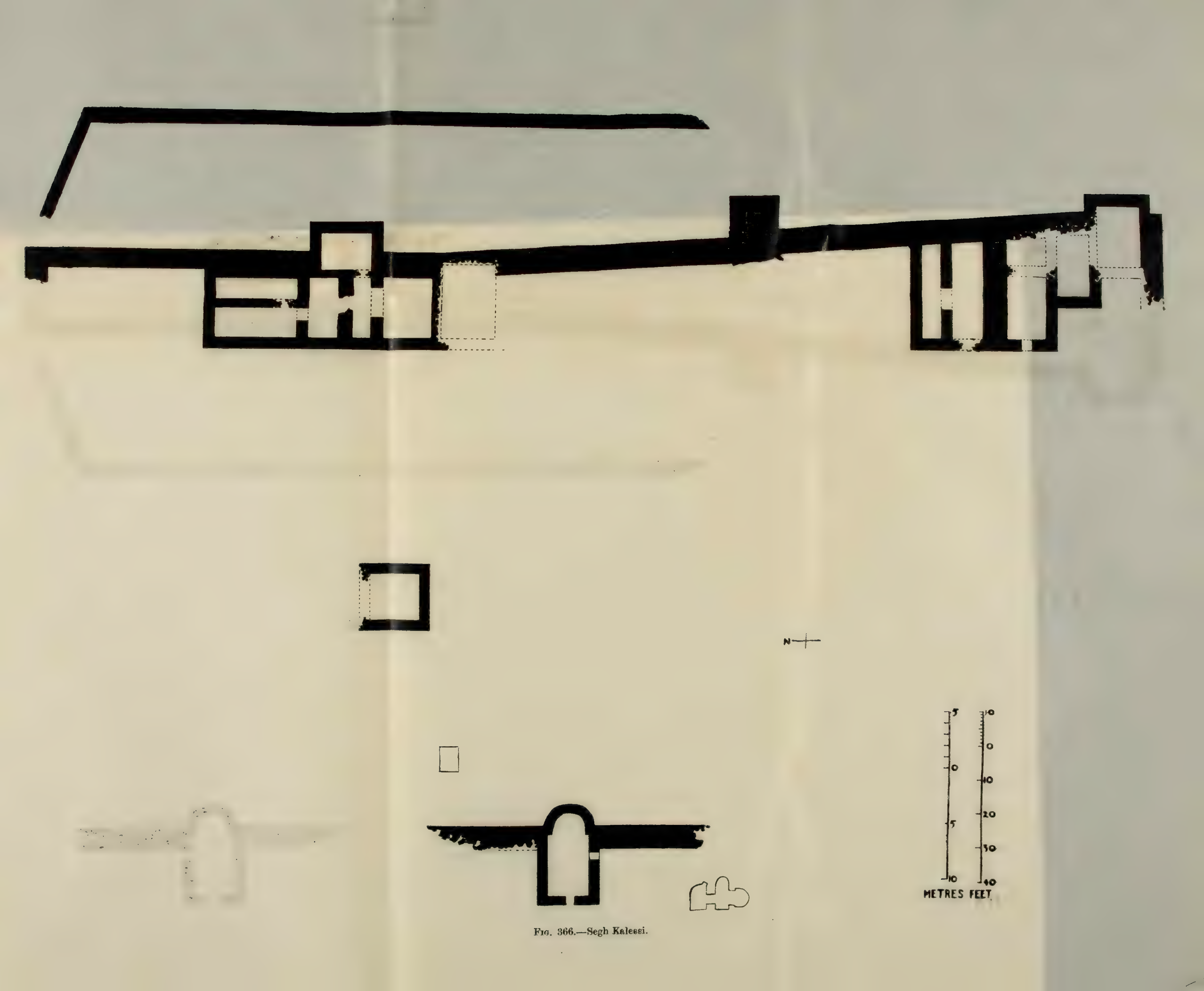


Fig. 366.—Segh Kalessi.



Mennek, half-way between Dagh Euren and Kurshundju,[1] but the principal fortress on the range is without doubt Segh Kalessi,[2] which stands on the summit of a conical hill at the S.-W. end of the Karadja Dagh and forms a noticeable landmark, familiar to all who know the country. The modern road from Kara Bunar to Eregli runs immediately below it. At the southern foot of the hill, not situated in the plain itself, but divided from it by a low spur, there is a large area of ruins partly reinhabited; its name is Kezmez, and I regret that I did not go down to it.

The castle of Segh Kalessi is a large and important building. I approached it from the W., climbing up a hill-side so steep that we were obliged to dismount and lead our horses. At the bottom of the steep slope I saw what looked like a well, carefully built of dressed stones; it is said to be the entrance of an underground passage that led up to the interior of the castle. At the top of the slope we came on to a shoulder of the hill, covered with rude masonry, above which rose the rocky summit crowned with walls (Fig. 366). To the N.-W. the hill-top falls away in precipitous rocks and this side, having been judged impregnable, is not fortified. The E. side is the easiest of approach, and here there is an outer line of wall below the bastioned wall of the castle itself. The entrance gate must have been to the S., above the shoulder, but the wall on this side is almost completely ruined and the gate or postern has fallen with the rest. The castle walls are of two periods. The earlier

[1] Callander mentions Mennek (Studies in the Eastern Roman Provinces, p. 177), but as he places it N. of Dagh Euren I do not suppose that he saw the ruins. There may be another fortress N. of Dagh Euren, indeed it is most probable that the northern end of the Karadja Dagh was defended, but I did not follow the summit of the range beyond Dagh Euren, the two days which I spent in camp under Mennek having been fully occupied. The Karadja Dagh is singularly inhospitable; the high yailas were almost deserted on account of a disease that had attacked the flocks; commissariat arrangements were difficult and rumours of robber bands kept my tiny retinue uneasily on the alert.

[2] The pronunciation is doubtful. The peasants usually call it Sagh Kalessi, the Right Hand or Unbroken Castle, but I was assured at Kara Punar that the true pronunciation was Segh Kalessi, *i.e.*, the Dog Castle.

building is of dressed stones, unequal in size, some of them being very large; no mortar shows between the stones. The later work is of small stones, laid in a thick bed of mortar; it is superimposed upon the older foundations. For instance, the square bastion lying farthest to the N. (Fig. 367) is all of old work except for a few courses at the top of the wall; the chambers to the W. are later, but they are on old foundations, while all that can be seen of the outer wall in the left-hand corner of the photograph is of the earlier period. The block of chambers at the S.-E. corner is of the later work; a bit of moulding, a rough cyma, is built into the walls here, but I saw no other fragment of decoration among the ruins. The bastions have all contained small rooms. In the centre of the area enclosed by the wall there are two detached square buildings and a tank; on the W. side stands an apsed chapel very roughly built of large dressed stones with plain undecorated lintels. There was a thick wall abutting it on either side. W. of this wall I found a small irregular rock-cut chapel with two apses to the E. and one to the S. The interior was covered with plaster. Of the many fortresses I have visited in Central Asia Minor this is the only instance of a church of any kind within the walls.

I hazard the suggestion that Segh Kalessi, standing so impregnably in so prominent a position, may be the Byzantine castle of Thebasa, which Sir W. Ramsay places in his map at about this point. If the site of Thebasa is to be looked for in this region, according to his argument,[1] then there is no other fortress important enough to answer the requirements. This theory would account for the two different kinds of masonry. Thebasa was fortified by Nicephorus in 805. Harun er Rashid captured it in 806, but Nicephorus recaptured and refortified it in the following year.[2] The fortress would therefore have been partially destroyed by Harun er Rashid and hastily rebuilt by Nicephorus.

The ruins of Mennek present a problem which I cannot attempt to solve. They stand on the summit of a pointed hill

[1] Historical Geography, p. 339.

[2] Weil: Geschichte der Chalifen, vol. ii., p. 160.



Fig. 367.—Segh Kalessi, N.-E. bastion.



Fig. 368.—Mennek.

situated on the eastern lip of the great crater which occupies, roughly speaking, the centre of the Karadja Dagh. (There is another large crater a little farther to the S.-W.) The rocks of the hill-top rise in wide ledges one above the other, and advantage has been taken of these ledges in constructing the fortifications which are built in two encientes, roughly oval in plan, the one placed higher than the other. On the W. side a sheer precipice drops into the crater and here there are no walls. Within the outer enciente there are a number of small parallel chambers ; a mass of small ruined rooms fills the area enclosed by the inner enciente, and on the summit of the hill there is a Moslem grave. The walls and chambers of the fortress are alike built of slabby stones splintered off the native rock, dressed very perfunctorily and only on the outer side (Fig. 368). Very little mortar is used in this work. There are, however, two buildings in the inner enciente which are totally different in technique. One is a vaulted cistern, the other a large room. Both are built of dressed stones with the usual core of mortar and rubble in the walls. There are no inscriptions or decorations, nor anything to prove the work to be of the Christian period except these two buildings which were possibly a later addition. Sir W. Ramsay gives a description of a castle on a hill W. of Hadji Baba Dagh above Derbe[1] which coincides in many particulars with my notes written at Mennek before I had seen his paragraph. He believes the castle he visited to be certainly pre-Christian, and probably pre-Hellenic. It seems to me possible that we may have at Mennek the traces of an ancient fort, erected before the Christian period by the inhabitants of Dagh Euren, to protect the high uplands on which the town lies. This castle was taken over for purposes of imperial defence at the time when other fortresses were built on the mountain ridge, and received the additions and improvements represented by the two interior chambers and by some later building in the walls themselves. A careful examination of Dagh Euren might well reveal evidences of an ancient civilisation. Callander found a Hittite altar at Eski-Kishla to the

[1] Cities of St. Paul, p. 403.

N. of the mountain, and Sir W. Ramsay has discovered at Emir Ghazi two other Hittite altars and an inscription.

The castle on Arissama Dagh is to the N.-W. of Emir Ghazi. Kiepert's map is quite incorrect here ; he barely indicates the valley, fully three miles wide, which separates the Karadja Dagh from Arissama Dagh. Emir Ghazi lies in the middle of this valley and Arissama about three miles E., both under the slopes of Arissama Dagh. The castle above Emir Ghazi closely resembles Segh Kalessi. A bastioned wall runs round the hill-top. At the S. side there is a square tower, larger than the others, built in two storeys (Fig. 369). A postern gate breaks the line of the wall to the E. of the tower. In the centre of the enclosure there are a tank and a number of small chambers very roughly constructed. Sir W. Ramsay did not visit this fortress ; he climbed, however, to the summit of the ridge farther to the N.-E., and found there, rising out of the great crater, a steep high peak, accessible only at one point, crowned with an extensive and strong castle, whose construction and period were difficult to determine, though certainly Byzantine. There was a tiny church on the eastern lip of this crater.

The fortress above Tchukurken is of exactly the same type as the castle which I saw on Arissama Dagh. It crowns a prominent hill standing out from the main block of Hassan Dagh. Sir W. Ramsay has identified it with the Byzantine Argaios and the Argos of Strabo.[1] Argaios was the second in the line of castles from the Cilician gates to Constantinople on which burned the beacon fires that carried to the capital news of invasion by the Arabs. Square bastions interrupt at intervals the line of the walls ; on one of these I saw a long inscription high up on the face of the tower, but it was impossible to get near enough to it to decipher it. It will be found on the wall represented in Fig. 370. Inside the walls are traces of the usual vaulted chambers and tombs.

This brief review of the characteristics of Byzantine fortifications on the southern hills is enough to show that, except in the general features of its ground plan, the castle on the N.

[1] Historical Geography, p. 352.



Fig. 369.—Kechi Kalessi, Arissama Dagh.

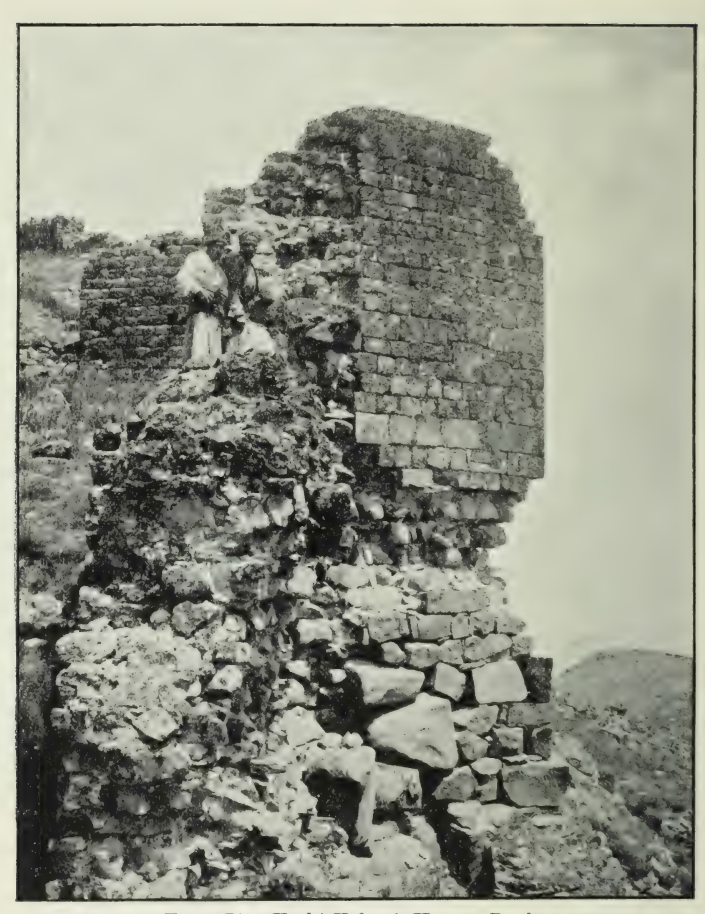


Fig. 370.—Kechi Kalessi, Hassan Dagh.

hill of Bash Dagh differs notably from the rest. It exhibits, indeed, the same curtain wall broken by bastions enclosing the summit of the hill on the sides from which it was liable to attack; but the masonry is infinitely superior to any that is to be found elsewhere, and the bastions, instead of being square, are round or polygonal towers built with the utmost care. As regards the masonry, it is not only unlike that of the other fortresses on the southern frontier of the Anatolian plateau, but also quite unlike the masonry of any building in the Kara Dagh, and I am led to the conclusion that we have here a structure that was not due solely to local skill. This supposition is borne out by the resemblances that exist between the Bash Dagh fortress and the North African castles erected during the reign of Justinian. The massive masonry of Bash Dagh is the typical masonry of the African castles.[1] Round and polygonal towers, though not so common as square towers, are found not infrequently in North Africa.[2] The broken line of the curtain wall, which is so marked a feature at Bash Dagh, appears at 'Ain Tounga[3] and at Haidra.[4] The circular tank at the bottom of the crater is a familiar form in North Africa.[5] The arrangement of the postern gate in the E. wall, communicating not directly with the interior of the fort, but masked by an inner passage, recalls the complicated entrances of the North African fortresses. The moulded lintels that lay among the ruins of the hexagonal tower, and the moulded string-course on the polygonal tower, are further evidences of a much more elaborate workmanship than is usual in the Anatolian castles. It is to be observed that one of the lintels bears the dentil characteristic of the early Cappadocian churches.

For the rectangular building on the col I can find no exact parallel in North Africa. It is not unlike the Roman fortified

[1] Diehl: L'Afrique Byzantine, p. 149, taken from Saladin.

[2] *Ibid.*, p. 152. There are good examples of round and polygonal towers at 'Ain el Bordj, p. 219.

[3] Archives et Missions, vol. ii., p. 542.

[4] Saladin's reconstruction; see Diehl: L'Afrique Byzantine, Plate 2.

[5] See Archives et Missions, vol. xiii., pp. 53, 108, 123, etc.

camps of the Syrian desert, at Weyned, for instance, or Mseyis,[1] and if it stood alone it might pass for a building of the pre-Christian period. But the masonry is in no way different from that of the castle on the N. hill, and I assign it unhesitatingly to the same date. The group of chambers on the S. hill is, however, dissimilar in every respect from the castle on the N. hill and the buildings on the col; I should say that it belongs undoubtedly to a later time.

On architectural grounds, therefore, I am inclined to place most of the buildings on Bash Dagh in the sixth century, and believe that they were in all probability not due to local initiative, since they do not bear the stamp of local work. A fortress at this point could not in the time of Justinian have formed part of a network of frontier defences. If it be indeed the case that we have on Bash Dagh evidence of his handiwork, the castle must have been erected to guard the great southern road that led to the Cilician gates. It would not be the only instance of such constructions on the military roads. Sir W. Ramsay is inclined to attribute to Justinian the fortress of Khoma, on the road between the Hermus Valley and the Upper Maeander Valley.[2]

I must, however, add that M. Saladin, to whom I sent the plans and photographs of the castle on the N. hill of Bash Dagh and the buildings on the col, is of opinion that they must be pre-Christian. He says that the masonry is more careful than any which is to be found in the sixth century work in Africa or indeed in any Christian work. I recognise this objection, but the two lintels are a serious bar to a pre-Christian date. One bears a cross and the mouldings of both are of the same general character as the other Kara Dagh mouldings. There is no evidence to show that the lintels are later additions, but the point could not be determined without some excavation. The torus moulding on the two bastions helps to support M. Saladin's view; it does not look like Christian work.

The fortresses of the Kara Dagh, the Karadja Dagh and Hassan Dagh, except perhaps the rude double enciente of Men-

[1] Musil: Kseir 'Amra, pp. 94 and 113. [2] Historical Geography, p. 80.

nek, belong to the type of Byzantine military work for which North Africa offers at present the best-known examples. They all resemble the North African castellum, with the line of its curtain wall broken by towers and determined by the lie of the ground. These walls and towers are the sole defences; there is no instance of an interior keep or donjon, though occasionally one of the towers in the line of the wall is given a greater importance than the others and may have assumed almost the same part as that which was played by the donjon of a mediæval fortress, that is to say, it offered a final point of resistance for the garrison. Segh Kalessi and the castle on Arissama Dagh both have towers of this kind in the line of the walls. The same system can be observed in North Africa and elsewhere.[1] I have not seen in Asia Minor any trace of a ditch, and in only one case have I found a low outer wall beyond the main line of the defences (Segh Kalessi); in North Africa ditch and outer wall are absent.[2] Segh Kalessi is also the only instance of a fortress that contained a church;[3] as a rule the buildings within the enclosure are of the roughest character, but everywhere there are traces of chambers, presumably for the lodging of the garrison, and every fortress was provided with one or more vaulted cisterns. These principles of fortification continued to exist in Asia Minor unmodified until the latest period of Byzantine domination, and when the villagers of Maden Sheher made their last despairing resistance to the Seljuk invaders, they threw up in haste for the protection of their village a fort of which the plan does not differ in any way from similar constructions in North Africa which can be dated 400 years earlier.[4] Like the African citadels, it must have served both as a fortress and as a place of refuge for the population of the town.[5]

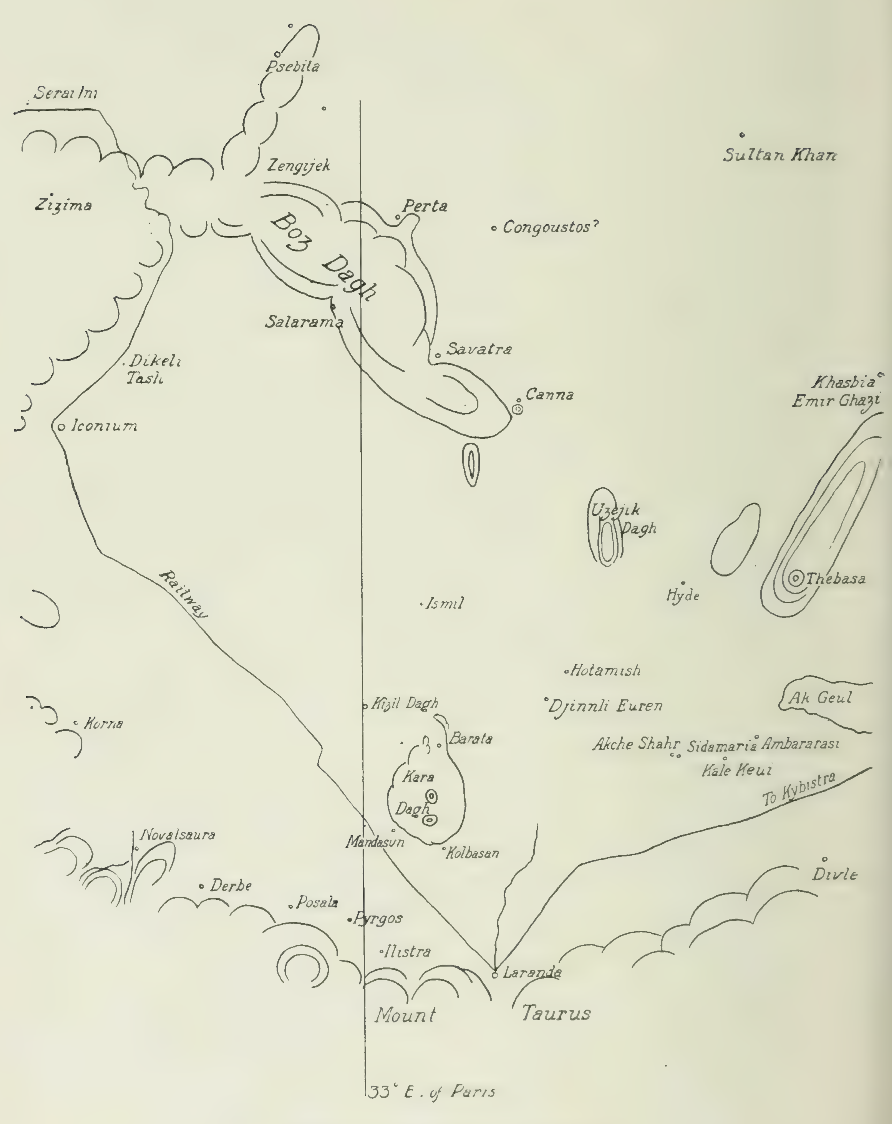
[1] L'Afrique Byzantine, p. 158. Compare Nicaea, Edessa, etc.

[2] *Ibid.*, p. 184.

[3] Compare Haidra, L'Afrique Byzantine, p. 195.

[4] L'Afrique Byzantine, p. 194.

[5] *Ibid.*, p. 205.



Map of south eastern Lycaonia.

PART IV

OTHER MONUMENTS OF THE KARA DAGH

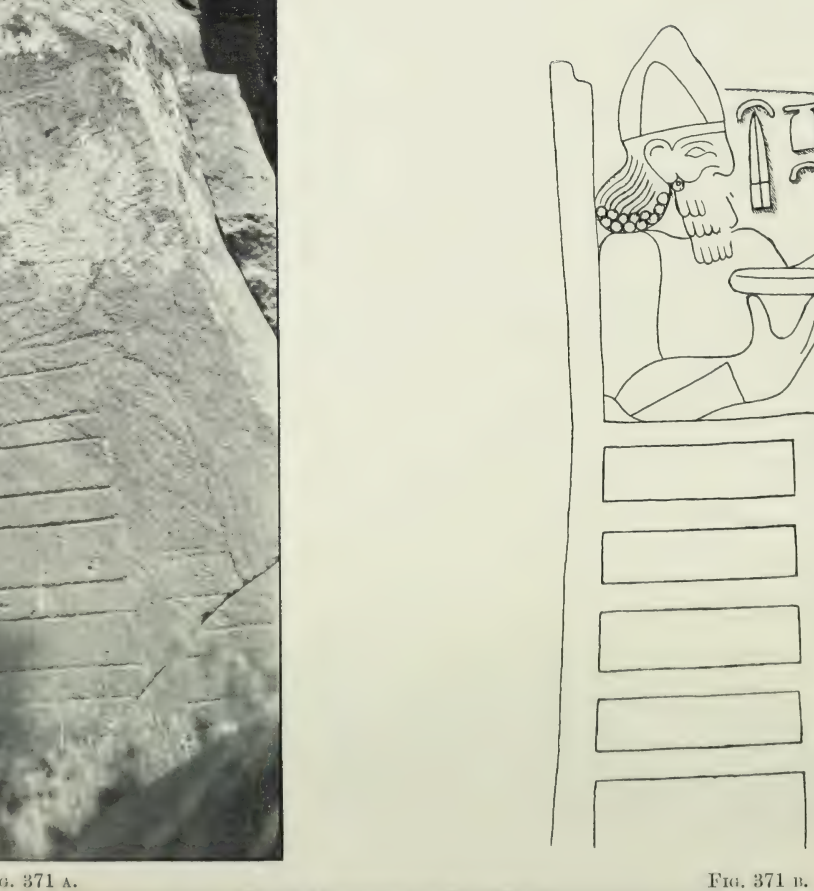


Fig. 371 a.

Fig. 371 b.

Hittite Monument on Kizil Dagh.

PART IV

OTHER MONUMENTS OF THE KARA DAGH

I. Early Anatolian Period: Hittite Inscriptions

1. The church on the summit of the Kara Dagh (p. 241) seems to have been built on the site of an old Hittite High Place which was almost totally destroyed or covered up. The only remnant of the old High Place is found on the N. side about 20 or 30 feet below the summit, where a narrow passage running E. to W. between rocks bears two inscriptions, one on each side, in the Hittite hieroglyphics. This passage was partly, if not wholly, lined with Byzantine masonry, which was perhaps intended to conceal the evidence of heathen worship and writing; but most of the masonry has fallen. The passage was entered by a Byzantine door E., and by openings, now free from masonry, on N. and E. On the N. wall is an inscription in one line of incised hieroglyphs: opposite on the S. wall is a short inscription in relief, four symbols between two columns (Fig. 374 *b* and *c*). This latter is the typical group of the Kara Dagh, and recurs in all the Hittite inscriptions, two on Mahaletch and four on Kizil Dagh.[1] It demands careful study, for it evidently indicates some person or idea of great importance in the city of Maden Sheher, which lies between Mahaletch and Kizil Dagh.

In four of the inscriptions, 1 *a*, 2 *b*, 2 *c* and 3, this group is marked as a unity by the overshadowing winged solar disc. In 1 *b* it stands alone. In 2 *a* it accompanies a human figure, being placed between his face and the sceptre which he holds; and it must be his name or description. It cannot indicate a god,

[1] Not the hill above Maden Sheher on E., but the outlying peak in the plain, 12 kilometres to N.-W.

because the symbol of divinity is not prefixed; and in one case it immediately precedes a group which is marked as the name of a god, 1 *a*. The juxtaposition suggests that it is the title of the priest of this god. The close connection between the god and the person or idea designated by this group of hieroglyphs is conclusively demonstrated by 2 *b* and 2 *c*. In 2 *c* (Fig. 376) the group stands by itself in the top line of the inscription, surmounted by the name of the same god who is mentioned beside it in 1 *a*. The inscription 2 *b* (Fig. 374), on the place where the god is presumed to sit, consists of the typical group overshadowed by the winged disc, the whole being surmounted by the name of the same god and the symbol of the bent arm turned towards the name. This collocation is evidently significant: it must mean that the person or idea designated by the typical group of symbols directs attention to, or is connected with, the god.[1]

This god is the same who appears in the great rock sculpture at Ibriz, the most remarkable monument in Asia Minor; and the symbols that contain his name are interpreted by Professor Sayce with the highest probability as Sandes, the name of the great deity, worshipped in Cilicia and south-eastern Asia Minor generally. He appears at Ibriz in the character of the agriculturist,[2] but of course it must be understood that this is only one of the forms in which he manifested himself to man.

The figure who appears in 2 *a* (Fig. 371) must therefore be the priest. One would at first be inclined to regard this figure as a god; but the priest wore the robes and wielded the authority of the god, and was usually designated by a sacred name, which belonged to some manifestation of the god and was assumed by every priest when he succeeded to the office. Hence in 2 *a* the priest occupies the chair of the god whose representative on earth he is.

In this priest we need not hesitate to recognise the priest-

[1] In this case one of the symbols in the group is not the same as in the other five cases: we must suppose that the symbol which differs is another way of expressing the same sound or syllable or idea.

[2] Compare the article "The Peasant God" in Luke the Physician and Other Studies with illustration of the Ibriz monument, p. 174.

king or priest-dynast, a common and characteristic Anatolian institution. In the Black Mountain, which is so plainly marked as a seat of Divine power both by its natural features and in its history, a priest-king may confidently be expected. As the sacred name was assumed by every priest, its occurrence on three monuments does not prove that all emanated from one single sovereign. But it is probable that 1 *a* and 1 *b* were contemporary, though one is incised and one in relief; and the commonly accepted theory, that incised hieroglyphs belong to a later epoch than those in relief, may be set aside as premature.

2. A little N. of Suleiman Hadji[1] village is Kizil Dagh, a hill elongated N. to S., very steep and rough on all sides except S. On the comparatively level top are the slight remains of a fortress. On the N.-W. shoulder, under the fortress, is a pinnacle of rock, cut into the rude semblance of a throne with a high back, broad seat and low base like a foot-rest, looking nearly due W. The monument has suffered from the hand of time, and fractures have injured the outline of its shape; but the essential features and the inscriptions have suffered little. On the high back the figure of the priest-king in the character of the god is indicated by incised lines, as shown in the photograph and drawing (Figs. 371 *a*, *b*).[2] He sits on a high-backed chair, wearing the high pointed cap of the Hittite dynasts, with long curling hair and beard, and a long dress fringed at the foot. He rests his feet on a high footstool, and holds in his right hand a long sceptre with

[1] To be distinguished from the Yaila two miles farther S.

[2] The photograph is faint and out of perspective; it had to be taken very close and from too low a point, resting not quite level on the ground; hence the upper part is narrowed, and the long sceptre seems to slope too much towards the figure which holds it. The drawing shows what Miss Ramsay saw in 1909 and I in 1907. The figure is very difficult to distinguish before midday, when it begins to catch the sun. When I was drawing it, shortly before noon, I imitated the lines one by one, thinking they were all hieroglyphs: after a time I saw on the paper before me a human nose like that of the god at Ibriz: the first sunlight began at that moment to reach the surface, and the man was clear on the rock. In 1908 we made two journeys to photograph the monument, and on both occasions the light was too bad. In 1909 the light was better, but not strong enough. Professor Sayce interprets the inscriptions in Proc. Soc. Bibl. Arch., 1909, p. 83 ff.

a peculiar head, similar to the pillars that enclose his name in all the inscriptions and actually used as one of the pair in this case, while his left hand supports a round flat object, which I understood while drawing it to be a patera. The symbols of his name are in relief, while he is indicated by incised lines; hence the peculiar fact that the shaft of the sceptre is indicated by incised lines, while the head is shown in relief in order that it may serve as one of the symbols. That this symbol is primarily the sceptre-head is shown by the fact that it is not exactly the same in form as the corresponding symbol. The chair is 6 ft. 8 in. high, chair and footstool 3 ft. 4 in. across. The elevation and plan in Fig. 376 *d*, *e*, are roughly done without measurements to show the original intention, not the present irregularities. The cleft in the seat was perhaps original.

The inscription 2 *b* is indicated in incised lines on the seat, and 2 *c* on the front of the lower part of the throne (Figs. 373, 374, 375 *a*). The use of incised and relieved symbols on the same monument confirms the inference drawn from the inscriptions on Mahaletch, that the two kinds of writing were used at the same period.

This remarkable monument roused in me, the moment that I beheld it, a feeling of regret that Dr. Reichel had died before it was discovered. It is a striking confirmation of his theory as to the importance in early Anatolian religion of thrones placed on prominent hills. In a paper [1] published in 1897 he collected many more or less probable examples; but none were so clear and undeniable as this. As long ago as 1882 [2] I described a quaint monument on the highest point of a rock citadel in Mt. Sipylus, E. from Magnesia, as the throne of a god; and this opinion has been fully justified by subsequent discovery. The Hittite inscription near Keuli Tolu [3] is on one end of a very large block of stone, whose opposite end is cut into the semblance of a double seat, the throne of a pair of associated deities, the

[1] Ueber vorhellenische Goetterculte (Wien, 1897).

[2] Journal of Hellenic Studies, 1882, p. 36 f.

[3] Messerschmidt's Corpus Inscr. Hethit., No. 45. The stone is in the open plain not far S.-E. from a fort (which I take to be old Anatolian) in the gorge traversed by the railway six miles E. of Ilghin.

Fig. 373.—Hieroglyphic inscription at gate.

Fig. 372.—The throne of the Anatolian god: with three hieroglyphic inscriptions and sculpture.

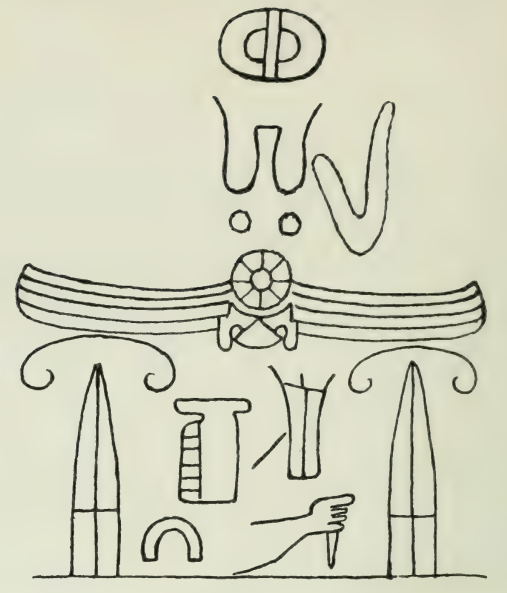


Fig. 374.—Inscription 2 *b* on throne.

Fig. 375.—Inscription 2 *c* on throne.

god and the goddess. I have never been able to accept Reichel's view that these thrones belong to a stage of religious ideas older than the anthropomorphic, when the divine being was still thought of as vague and formless power. The very idea of a chair implies the idea of a person to sit upon it; and the occurrence of a double chair implies the idea of a pair of personal beings.

In front of church No. 35 is a quaint monument cut out of the native rock, which protrudes a little above the ground. Though a good deal dilapidated, it has the form of a double throne; and I feel no doubt that it is an old Anatolian religious monument, the chair of the god and the goddess (Fig. 150). A rock monument, on the N. side of the church, seems to be a tomb, whose original sacred character was preserved under Christian form in Byzantine time. The church may confidently be taken as the Christian substitute for an older pagan shrine.

The two "High Places," Mahaletch and Kizil Dagh, suggest another reflection. A feature of Deghile, which is common to many other Lycaonian sites among or near hills, *e.g.* Savatra, is that there is on most of the peaks, visible from a considerable distance, a sharp point, like a surveyor's signal, too sharp to be natural. I have seen few of these points close at hand;[1] but in one case I found that the point was a pile of stones put together with slight care. At Deghile the points are native rock, cut a little to the form of a small rude obelisk or altar. These points had probably a religious value, arising from the belief in the holiness of high peaks.

3. The fort on the top of Kizil Dagh is entered by a gate on W. On the right hand as one ascends to the gate, a very little below the wall, is another Hittite inscription in relief. The symbols are very faint and difficult to distinguish, as Fig. 373 shows; and the copy in Fig. 376 *c* must be judged accordingly. The arrangements of the gate and approach have suffered too much from the hand of time to be clear in detail, though the

[1] Miss Bell's energy in ascending high peaks led to many important discoveries in Kara, Karadja and Hassan Dagh. Those which I have in mind are lower peaks near the line of the Roman roads, Laodiceia-Hyde-Kybistra and Iconium-Kybistra.

general character is evident. Excavation on this fort, if complete, might prove valuable.

II. Milestones and Boundaries

4. (R. and C. 1908) [1] on a flat stone protruding from the ground in the plain about three kilometres due N. of No. 7, near the hills. Epigraphic text Fig. 378.

*ἀπ]ὸ **Κονίου***	From Konion
ὀγδόη ν′ [2]	eighth and fifty
*νη′ . εἰς **Γα-***	58. To (the
ειανου	city) of Gaianus
III Γ	III. (miles).

I can see no way of interpreting this as a boundary stone. As a milestone it is intelligible, but full of unusual points. The form *Κόνιον* for *'Ικόνιον* is found in Byzantine time: Chalcocondylas (p. 243) has *τὸ Κόνειον.*[3] *Γαειανοῦ* with *πόλιν* omitted is also a Byzantine usage: such expressions as *εἰς τὴν Φιλαδέλφου,* to Philadelphia, are common. The final number in both Greek and Latin is paralleled by C.I.L., iii. 7171; the double notation of the first number is explicable only through the style of MSS.: *e.g.*, one finds in Cod. Bez. in Acts xix. 9, *ἀπὸ ὥρας ε′ ἕως δεκάτης*. The numbers are very near the true measurements (see p. 563). The stone is only two Roman miles from the nearest point of the Lower City, but three from the Upper City.

It must be supposed that a Christian title was at some time given to the ancient city, as Aphrodisias became Stauropolis, Prousa Theopolis, etc. Gaianus presumably was a saint, whose worship was characteristic of the place. He can perhaps be traced through the Martyrologies. Gaianus was the name

[1] The letter C. indicates copy by Mr. W. M. Calder, Hulme Student of Brasenose College.

[2] We had thought of *ὀγδόην*, supposing the word for "fiftieth" to have been omitted by a careless engraver. M. Henri Grégoire suggests *ὀγδόη ν′* (though the mixture of two styles in one number is, as he says, unique).

[3] Printed in the editions as *Τοκόνειον*, and possibly the article and noun may have been run together as in Stangia for Cos, etc. (Histor. Geogr., pp. 285, 290).

of many martyrs, but none need detain us except two who suffered at Ancyra of Galatia, Prid. Kal. Sept. and Prid. Non. Sept.[1] The two are briefly given in the early Syriac Martyrology, probably translated from a Greek original connected with Nicomedia :—

31 Aug. in Ancyra Gilos martyr and six others.
4 Sept. in Ancyra Marcellus and eight others.

The entries in Mart. Hieron. explain these :—[2]

Prid. Kal. Sept.	Prid. Non. Sept.
Ancyra Galatiae Gaiani, Juliani, Rufini, Vincentii, Silvani, Italicae [Antiquirae], Aemiliani [Florentii], Justae [Juliae], Anthimi[3]	In Ancyra Galatiae [Marcelli] Gaiani, Helpidii, Antonini, Rufini, Silvani, Eustochii [Maximi], Eusebii, Gaiani, Vitalicae, Gaisuti.[4]

Correcting the obvious errors, we have the lists :—

Gaiani, Juliani, Rufini, Vincentii, Silvani, Italicae, Aemiliani, Gaisuti, Anthimi.	Gaiani, Elpidii, Anthimi, Rufini, Silvani, Eustochii, Eusebii, Juliani, Vitalicae, Gaisuti.

Vincentius, Aemilianus, are peculiar to Aug. 31, Elpidius, Eustochius, Eusebius, to 4 Sept., while seven are common to both lists. Surely these are two traditions of one list of martyrs, headed by Gaianus. The disagreement in some names does not detract from the historical character of both lists. Probably Vincentius and Aemilianus on Aug. 31 are mere errors ; and the list of that day is Gaianus and six others, to which Sept. 4 adds Elpidius and Eustochius,[5] *i.e.*, Gaianus and eight others.

[1] The others in Mart. Hieron. are V Kal. Jan. (Thrace), III Kal. Mart. (Thessalonica), Pr. Kal. Mai. (Alexandria ?), Pr. N. Mai. (Mediolanum), XVII K. Jun. (Ephesus), XVII K. Jul. (in civit. Barbaria), V Id. Jul. (Rome), VI N. Oct. (doubtful). Is Barbaria Barata misplaced ?

[2] I put dittographies in square brackets.

[3] Antiquirae (omitted in some MSS.) is a mere repetition of Ancyrae, Juliae of Juliani, Florentii of the Roman name later in this day's list. Justae is a slip for Gaisuti.

[4] Marcelli is a repetition of a Gallic Saint and Maximi of a Roman name, both later in this day's list, the second Gaiani is a slip for Juliani, and Antonini for Anthimi.

[5] The Syriac and Hieronymian Martyrologies are therefore derived here from one original authority, which gave on separate days the two lists, one

The name Gaisutus proves the trustworthiness of the record. It should be Gaisatus, a characteristic Celtic name,[1] which suits the Galatian country. We may now regard Gaianus as corroborating this view. The band of martyrs was, of course, gathered from various parts of the Province, and for some reason Gaianus was the striking figure in the martyrdom. If the event occurred before the time when Hadrian placed Maden Sheher in the Triple Eparchy (Cilicia-Isauria-Lycaonia), a native of the place would be tried and would suffer at Ancyra: later, in Tarsus, cp. Acta SS. Claudii etc. 23 August, p. 597.

We thus recover from this milestone, along with the Byzantine name of the city, an interesting event in early Christian history, a martyrdom on a great scale at Ancyra under Trajan or Domitian.

5. (R. and C. 1909.) On a rough stone forming the lintel of a small watchman's shelter in a field two km. N.-E. of No. 7, and S. of Kara Tepe (Fig. 380). Only *πρὸς μεσεμβρί(αν)* can be distinguished: the badly spelt stone probably defines boundaries.

6. (R. 1907.) On a rough stone in a field E. of Kizil Dagh, N. of the road to Tchoglu. There is a carved sarcophagus near; also other slight ruins.

Λέο(ντος). This is probably a boundary stone of the territory of the ancient city. The land now belongs to Tchoglu, a village in the plain to E. On Leo compare inscription 27.

III. Sarcophagi

Sarcophagi, many in their original position, are abundant all over the Lower City, chiefly in the E. and S. parts. All are of the common native ruddy porphyritic stone. Only two have

shorter than the other. Confusion between Prid. Kal. and Prid. Non. caused duplication of one list, which in the process was in one case shortened (perhaps both were only extracts from a still longer list). Eusebius on 4 Sept. is doubtless a "corrected" form of the rarer Eustochius. Aemilanus on 31 Aug. is perhaps a dittography of Iulianus. Vincentius is an intrusion, still unexplained.

[1] Gaison, a spear; Gaisatos, spearman; Gaisatorix, king of the spearmen, are familiar Galatian names.

Fig. 376.—Hittite inscription and plans.



Fig. 377.—Sarcophagus.



Fig. 378.—Inscriptions 4 (numbered 5 in error) to 34 : except 5, 6, 8, 19, 25, 26, 27, 33.

inscriptions. Few have any sculptural ornament. The great majority are either plain, or decorated only with raised bands. I have noted only one in which a cross formed part of the ornamentation. One at Deghile has an agricultural scene very rudely sculptured, a man ploughing with two oxen and holding a goad. Another half-way down the long descent thence to the plain on the west, thirty yards to the right of the road, has a man and a horse. Both belong probably to the Roman period, not later than the fourth century. Many ploughing scenes occur on N. Phrygian gravestones of the third century. The photograph in Fig. 377 shows a more interesting subject, unfortunately mutilated, on a broken sarcophagus on N. side of No. 7 in a field. The scene is mutilated but the subject is evidently an animal, probably a lion, facing a woman, with a vase between them. The schema is very common in native reliefs of the Roman period. Here however the reminiscence of old Hittite scenes and dress is evident, and shows that this is the oldest of the sarcophagi, and quite independent of Hellenic influence, though probably of the Roman time. The woman (a priestess?) wears a dress striped obliquely quite in the antique style of the Hittite reliefs: see drawing in Luke the Physician and other Studies, p. 208.

7. (R. 1907 : R. and C. 1909.) MM. Radet and Paris, in Bull. Corr. Hell., 1886, p. 512. On a sarcophagus in the wall of a courtyard W. of the road leading N. past the front of No. 3 from the fortress into the village. Letters small, rude and sometimes worn ; hence the copy in B. C. H. is unintelligible ; I spent several hours on the stone—

> *Αὐ[ρ. Τᾶς ? Δού]δου ἰδίοις ἀναλώμασι ἐποί-*
> *ησε τὸν σωρὸν τοῦτον, κατέθετο δὲ τὸν*
> *ἀδελφὸν αὐτοῦ Ἴνη[ν]. καταλύει ὃς ἂν κ[αθέ]λῃ,*[1]
> *κὲ τιμῆ[ς ὅ]ς ἐπενκαλέσῃ τῷ τα[μ]ίῳ ἐκ τῶν*
> *κληρονόμω[ν] ἐνκη[δευθήσεται ?]*

"Aur(elius) Tas? son of Doudes at his own expense made

[1] *ἰσ[βιάσ]ῃ*, a false form for *ἰσβιάσηται*, is excluded by narrowness of space and by the traces in the gap, but that is the meaning intended.

this sarcophagus, and laid in it his brother Ines: whosoever shall destroy (or enter, *ἰσ[έλθ]ῃ?*) shall expiate the offence, and whosoever of my heirs shall bring a charge against the violator in respect of a penalty to the treasury shall be admitted to burial here."

The form and style show probably that this epitaph is not later than A.D. 300. It was written by a person ignorant of Greek, as the gender and spelling of *σωρός*, and the helplessness of the syntax prove. *ταιῳ* for *ταμείῳ* shows that the engraver was careless as well as ignorant. The last word was never completed. The only probable restoration of the opening is *Αὐρ*, which would prove the date. There remains a narrow space for the second name and the father's name; and hence I have restored very short names.

The name Ines is the masculine of the common feminine name Na or Ena with prothetic vowel: compare *Ἴμμας* and *Μᾶ*, and many others (Cities and Bish. of Phr., i., p. 269).

8. (R. 1907, C. 1909, no difference.) On two sides of a sarcophagus *in situ* about 200 yards N.-W. of No. 7. Letters so faint that I looked several times before observing that the sarcophagus was inscribed. I give no epigraphic text, as the letters are of the ordinary round type: only the ligature of two *ω* is unusual in line 4:—

> (*a*) *λεύσεις, ὦ φίλε, τύμβον Ἀκυλείνου πραότητος*
> *Σωκράτευς,*[1] *ὃς πολλὰ βίῳ ἐν κήδε' ἀνέτλη.*
> *ἐγ δοίων ἀλόχων ἓξ θρέψας εὔτροπα τέκνα,*
> *πηρὰ ἐν ὠμοτάτῳ οἰκτρῷ μόρῳ ὤλεσα πάντας.*
> (*b*) *Ποτιολὶς ἡβήσασα σοφὴ σώφρων καὶ ἀρίστη*

"You behold, friend, the tomb where lies meek Aquilinus, son of Socrates, who endured many troubles in life. Father of six good children by two wives, I lost them all, cut short in most cruel pitiful death. (*b*) Potiolis in her youth, wise, prudent and best."

The letters have the rounded form, common from A.D. 100 onwards. The periphrasis, "the meekness of Aquilinus," is

[1] I read this form, not *-ους*.

quite in the style of A.D. 350-400, as seen in the Cappadocian Fathers: *πραότης* is indubitably Christian. The name Aquilinus was favoured among the Christians of that period:[1] it was borne by a bishop of Podalia of Lycia in A.D. 458: in Isauria a martyr named Aquilinus suffered XVII. Kal. Jun. Potiolis was probably the first wife: the name is probably comparatively early, when trade tended to Rome, and the road from the East by way of Ephesus and Puteoli was the axis on which the world of civilisation and intercourse turned. The second wife, who is not mentioned, probably survived her husband. All the six children of the two marriages died before Aquilinus; and the terms in which their pitiable cruel fate is described suggest that their death took place in some calamity, such as pestilence, earthquake, or conquest by barbarians. The last lot may have befallen the city on various occasions during the third or later centuries, when Lycaonia was exposed to Sassanian and other inroads.

The Greek is correct, but not idiomatic: it is stilted and artificial, the expression of a man to whom the tongue was known by education, but not by familiarity. *κήδεα* is strictly accurate, the word literally means mourning or funeral; but the phrase is probably taken from Homer, *e.g.*, Od. XIV., 47. The spelling is correct, except λεύσεις. The author has struggled, with rather more than usual success for a writer on the plateau, to observe metrical laws. As usual, the proper names proved most intractable. There is in the epitaph some echo of Greek, as distinguished from Byzantine style; and about A.D. 350 seems a reasonable date.

IV. Inscriptions of the Churches

9. (R. and C. 1908, revised 1909.) No. 1. On S. wall of narthex central room. The inscription is on the lowest coat of plaster, which was applied directly to the walls: the letters are red on a cream-coloured ground. Subsequently the plaster was repainted above the first painting: the new colour was generally dark in colour, but in one place I saw a horizontal band of

[1] It is rare in later time.

red.[1] At a still later time a new coating of plaster was imposed above the early plaster, and painted with figures of large size. This upper plaster extends over the restored supporting arches of the later church, where it is the sole coating.

These facts give chronological indications. The upper plaster is that which was applied to the entire church, when it was restored and interior arches, etc., were built to strengthen the fabric: therefore it may be dated somewhere about A.D. 900. The middle coating of paint in dark and red must be older than the sack of the city by the Arabs about A.D. 700. The lower plaster must be contemporary with the building of the church; and one is not readily inclined to suppose that it was out of date and painted over, until nearly 200 years had passed.[2] The repainting had taken place before 700, and therefore the building and ornamenting of No. 1 probably occurred about A.D. 500 or earlier. As to the style of the first paintings, very little is known. Much of the plaster has disappeared, leaving bare walls. Where the plaster remains, the upper layer generally survives; and I found it impossible to detach the top layer without injuring the surface and removing the colour of the lower layers. Only in this inscription, and in a few small places on the E. wall of the chamber can we see the surface of the cream-coloured plaster,[3] and the ornament always consists simply of inscriptions in red letters usually smaller than those of the present text; and the pieces are so small that nothing can be made of them. But this inscription shows that there were saints and sacred subjects in the earliest ornamentation.

The inscription is much mutilated. In a large part the

[1] One has to judge by a small number of places where this painting is visible.

[2] It must, however, be allowed that some exceptional reasons might cause repainting at a shorter interval.

[3] The dark repainting covers over this original painting at various points on the E. wall: in such cases one can detach the upper painting and reveal the lower, disclosing parts of red letters on the under coating of paint, but in this process the red paint of the lower coating scales off in part. There can be no mistake about the existence of two coats of paint, quite different in tone and style. The one stands clear above the other, a distinct and separable skin.

plaster has fallen off completely. Where the plaster remains the red colour has sometimes scaled off in parts. Without Mr. Calder's help I should have probably failed to make anything of the inscription. It was mainly his unwearied ingenuity and fertility in suggesting possible interpretations that deciphered the text, largely conjectural, which is here given. Numberless suggestions were made, considered, and rejected as inconsistent with the spaces and traces: those which survived the tests are given, some as possible, some as probable, some as certain.

The form of the letters is remarkable; but I see no reason to think them late. They are due to the necessities of painting rapidly with a brush on a moist surface. Take, *e.g.*, the alpha. The intention was to make it of the common form A; the cross-bar was painted with one motion of the brush from left to right, first down and then upwards; where the sharp change was made from the downward to the upward motion, too much of the colour was forced out of the brush and ran down the moist surface.

This running of the colour has happened frequently, and much increased the difficulty of decipherment. In the lowest line the surface was specially moist, and here the colour has spread so much that we could make nothing of it. The end of the second lowest line is nearly as bad. A more careful facsimile, together with Mr. Calder's tracing of the whole, was accidentally left in store at Konia in 1909.

L. 1. The opening word *ἀ]ρχάνγ[ε]λ[ος]* (detected by Mr. Calder), and the last *σταυροφόρος* may be regarded as certain.[1] I cannot find that the epithet "cross-bearing" was distinctive of any individual archangel: it seems descriptive of the painted figure, probably Michael (see 26, 59).

L. 2. *σὺν προτ[ύ]π[ῳ]*, too uncertain.

Κύρις Παῦλ *κῆρ[υξ]*: the form ***Παῦλ*** does not seem early, but *κύρις* for *κύριος* is found from the second century onwards: the reading is fairly certain.

[1] The genitive might possibly have been used in both cases, but C at the end is more probable than Y. Still the possibility of Y mutilated of the left horn must be left, though *ου* is elsewhere written in one symbol.

L. 3. *'Ακ]ύλας Παῦλος Σο[φ]ρωνίου* seems certain, though the last name is very faint and the letters much mutilated. This must indicate either the painters or the donors of the subjects just mentioned.

L. 4. *Μα]νοὺ[λ] κὲ τὰ κτέρεα* [·]*ου*[··]*ου*: the reading is Mr. Calder's. Though *κτέρεα* is much broken, the letters seemed fairly certain: the last word we took in 1908 to be *αὐτοῦ*, but in 1909 we decided that this is not possible except with the spelling *ἀουτοῦ*.[1] The form *Μανούλ*, if correctly restored, seems inconsistent with a very early date. The last words are naturally taken as [*τ*]*οῦ κράτους*, but this leads to nothing.

L. 4-6. *Κρατούσιος Παούλου*: the genitive requires a personal name in the nominative before it. *Κρατούσιος*, suggested by Mr. Calder, might be explained as a dialectic variety of *Κρατήσιος* (*kosenamen* for *Κρατήσιππος* or *Κρατησίπολις*).

[*ἐκάλ*]*ωναν, κὲ δανύ*[*ο*]*υ* [*φί*]*σκος · ο · ιυ ἴσας ξ' ἀδούλου*. The reading [*φί*]*σκος*, suggested by Mr. Calder, is very dubious; the first letter is clearly *P*, not *Φ*; and the supposition that the left half of the *Φ* has scaled off without leaving any trace is violent.[2] The reading *ξ' ἀδούλου* is the most certain part of the whole inscription and the least intelligible. Mr. Calder suggested that *ἀδούλου* meant "not subject to interest," and based on this the suggestion, "and in the way of loan without interest the Fiscus (contributed) equal sum of coinage, *viz.*, 60".[3] I have thought of *ἀδόλου*, "60 of pure (gold)," taking *ου* as an error of the painter. A byform *καλλώνω*, beside *καλλύνω*, is possible.

L. 7-8. *Ἴν]δακος καλόγ[ερος πρεσβ]ύτ[ε]ρος καὶ ἐπόνυν[μος τριβ]οῦν[ος]*. The text (largely due to Calder) seems reasonably certain, though much restoration is needed. A tribune is mentioned in inscr. 23 which is also pre-Arab; the office was therefore known in the city. But what was the nature of

[1] But *ου* is written for *υ* in *Παούλου*, 5: the error is easy.

[2] The remaining fragment of the second letter suggests C rather than I, but as part has scaled away, the shape of the remainder may be due to chance.

[3] *χρήματα ἐλεύθερα* is used in a similar sense, but I do not find *ἄδουλος* in this meaning. Imperial aid to church, Luke the Physician, p. 346.

the office? how could it be eponymous in Byzantine times? how could a monk and presbyter be a tribune? I can only suppose that the epithet eponymous is the survival of an expression now no longer understood: the city had in earlier time elected an eponymous magistrate; in later time his title was changed for the Roman term Tribune, but the epithet remained. The name tribune could hardly have had any except a military origin, and the fact that it supplanted the Greek title implies that, when the Hellenistic constitution of the city was Romanised, it was the military side of Roman organisation that presented itself as most typical to the people of this city. The whole proceeding is unique, but we know absolutely nothing about the state of such an Anatolian city in the Byzantine period. We know only that new names and forms seem to have come into use in the cities.[1] That a monk and presbyter should also be the chief municipal official is probably a reminiscence of the old Anatolian custom that the priest should also be the governor of the god's people (see p. 507).

L. 9 and 10. *Γε]ώργιο[ς] Ἀττ[άλου* [2] *Λου]γῖνος Ἴνδακος* [ ] *ους*. The reading is too uncertain to justify any inferences, except that a certain number of persons are mentioned, probably officials subordinate to the presbyter; and this makes the conclusion almost necessary that the erection and decoration of this church was a municipal matter. In other words, this was the city church, which suits its size and importance in comparison with all the other churches.

L. 11. *δο]ῦλος θε[οῦ]* is probable, though the fifth symbol is misshapen and uncertain.

The names in this inscription are of a rather early time (see 21-23); and they show remarkable uniformity with those in 10, 39, 42, 45, 50, 51. Akylas, Indakos, Longinus, Paulos, are characteristic of an influential family in this city, which erected the principal churches in Deghile (see 45). The same family seems to have been largely concerned with the erection of No. 1.

[1] In the villages of Lycaonia, *e.g.*, we find a *πρωτοκωμήτης*.

[2] *ττ* and *π* are equally possible, but the restoration Ἀπ[ολλωνίου] is too long.

From 39, 22, 45, 50, 51, we may add to the names current in this family Nesios and Valerius.

10. (R. and C. 1908.) No. 1. Painted in faded red on the N. wall of the central narthex chamber: as the letters were under the plaster, they must be contemporary with the building of the church.

Κόνων Ἰνδά[κ]ο[υ] preceded and followed by a cross. This is probably a graffito by some person engaged in the construction. The first eight letters are well formed, the last four are careless and uncertain. *Ἰνδοῦ ὑός* might be read from my copy; but that did not suggest itself in view of the stone.

11. (R. 1907: R. and C. 1909.) No. 1. These large letters are painted in faded yellowish colour on the outside of the W. wall close to the S. corner. It is not possible to say whether there were more letters at the beginning: some are lost at the end, as traces show. The inscription is restored easily as part of a common Phrygian sepulchral formula [*ὁ δεῖνα κατεσκεύασα ἐμαυτῷ καὶ τῇ γυναικί*] *μου· ἰς ὢ κὲ τῦς τέκ*[*νοις ἔξεσται κηδευθῆναι*]. I have nowhere seen examples of this formula later than the early fourth century; and should not be prepared to find it still in use as late as 500 A.D. Perhaps some other way of restoring it can be found, as it seems most improbable that such an epitaph should be permitted on the city church. We notice however that two epitaphs were engraved in a similar position on No. 32.

12. (R. 1907, 1908, C. 1909.) No. 1. Cut in rather deep, but small, letters on one of the lowest stones of the W. front, near the S. side of the door.

The inscription is an enigma. Was it engraved after the stone was in place? In that case it must be complete, as nothing else was ever engraved on this stone. Was an old inscribed stone used for the wall? In that case, the stone may have been cut down from a larger size, and the inscription might have extended longer at one or both sides. In the top line nothing was ever engraved, except the single symbol, which seems to be appended to the letter below it, giving the reading in ll. 2, 3, *δοῦλος τοῦ*. In l. 4, the name *Μενν*[*έας*] is clear.

The restoration [ὁ] δοῦλος τοῦ [θεοῦ] Μενν[έας] seems inevitable. It implies that the stone was larger when the inscription was engraved, *i.e.*, an old inscribed stone was cut and used in building the church. But here we meet a difficulty: δοῦλος is engraved partly at the right edge of the stone and partly continued at the beginning of the following line, implying that the inscription was engraved when the stone was complete. In this difficulty there seem to be only two possible solutions: (1) δου in ll. 1-2 is not part of δοῦλος, but the end of a name in the genitive; and ll. 3-4 read 3 [ὁ δοῦ]λος τοῦ 4 [θεοῦ] Μενν-5-[έας]. In that case the epitaph is not of early style. It could hardly be dated before the sixth, certainly not before the fifth century; and one could not justifiably suppose that it was taken from the Christian grave, where it was in place, to build a church long before the Arab inroads. Moreover, on this supposition, l. 2 is unintelligible. (2) The inscription was engraved so incorrectly that it was rejected as an epitaph, and the stone was utilised forthwith for building purposes: the date of the engraving was then practically the same as the construction of the church. The engraver had before him some model of this kind [τὸ μνη]μῖον ὁ δοῦλος τοῦ θεοῦ Μενν[έας ἐποίησεν ἑαυτῷ]; but he made so many mistakes and omissions, that he stopped in the middle of the name, and passed on the stone to the builders. About A.D. 500 would suit such an epitaph as well as it suits the church.

13. (R. 1907.) No. 1. Engraved in large, bold, but very rude letters on the front of the central column supporting the W. doorway. ἔνθα κατάκιτε Μουσιανό[ς], ὡ πωλὰς πλιγὰς ὑπωμίνας, "Here lies Mousianos, who many wounds endured". The inscription was cut by a hand not skilled enough to form the letters in such hard stone. The bad spelling belongs to a very uneducated epoch. Yet the epitaph is placed in the most conspicuous position that could be found, and the letters are so large, broad and deep, as inevitably to attract the attention of every one who approaches the church. It would be absurd to regard this as a graffito. It was placed here to be as public as possible. Either the ecclesiastical authorities ordered it, or it was engraved after the church had fallen into ruins, when there

was no longer any ecclesiastical authority or respect for the church. The second supposition would require a date so late as to be highly improbable. Beyond doubt this church was preserved and used as a sacred building, as long as any Christian settlement existed in the city.

This epitaph differs so markedly from the others that it must be placed after the Arab troubles, when the Lower City was reoccupied. I regard it as contemporary with the restoration of the church (see 20 and 25). When the city church was refitted and strengthened and repainted, it was practically a new church ; and a hero of the popular resistance who had fought often and received many wounds in battle against the Arabs, and who now represented the triumph of the people and the Church, was buried here at the entrance, as a consecration of the new building according to the ancient Anatolian custom, which was now reviving (p. 30). The epitaph has not the vulgar dating of 25, 61 etc. ; and is perhaps a little earlier than they.

References to war and the wounds received in war occur also in 43, 28. These must probably be explained by the long war against the Arabs. The probable dates point to this conclusion, and the simple "died in the war" (43) is connected with the one great war which ran its course for fully three centuries over Asia Minor.

One interesting question emerges in regard to these epitaphs ; do they belong to ordinary citizens or to professional soldiers? Few as they are, we can say with confidence that they must be the epitaphs of men of the city. The fact that churches in the city were built or restored in their honour implies a civic connection and family relationship. They were not mere professional or mercenary soldiers who chanced to die here.

This fact has an important bearing on the character of the struggle against the Arabs. The war was not entirely fought by a professional army defending a peaceful and helpless populace. To a certain extent the people joined in the defence (p. 29). The weakness of the defence against the Arabs lay in the fact that there was so little attempt at national resistance ; the people were, as a whole, too purely men of peaceful habits, clerics and monks and artisans and traders. But there were

exceptions. Some of the citizens joined in the defence, and met wounds or death in the war; although the emphasis that is laid on this in both 9 and 43 may probably be taken as proving that these were exceptional cases, and that there was nothing done here comparable with the heroic resistance made to the Turks in the fourteenth century by Philadelphia, which, though deserted and at last opposed by the Byzantine armies, defended itself and maintained its freedom for many years as the one Christian city in a Turkish region.

14. (R. and C. 1908.) A stone found on the site of the mosque (church No. 2), when it was rebuilt 1908: it may not belong to the church.

ἐνκατάκητε Φιλο[κ]θήτη[1] and *το κ.* The double compound verb is rare in this formula; the stone was probably laid flat on the ground over the grave, and the verb would be appropriate. Philoktete is a possible, but unknown name.

In S. wall of a ruined chamber behind the mosque were the rudely cut letters CΗΙΛΗ preceded by a cross. Possibly *σ[μ]ιλη*.

15. (R. 1882.) No. 3. Histor. Geogr. of As. M., p. 338: Strzygowski Kleinasien, p. 58, from Pridik's copy. Engraved over the arcades of the nave and apse in three divisions. (1) Part lost before 1882 through the collapse of the N. arcades: doubtless in groups of letters read successively by the spectator as he walked from W. towards the apse. (2) Two groups on the apse, (*a*) ΤΟΚΟΛ preceded by either a simple or monogrammatic cross,[2] (*b*) ΛΗΓΙΝ: this part was lost through the ruin between 1895 and 1905. (3) Groups of letters between the spring of the arches on the S. side, read successively by the spectator as he walked from the apse towards W. door: (*a*)

[1] There is a blur with space for one letter between *ο* and *θ*: but there was no appearance of *ς* at the end. *Φιλοθήτη* is possible, as the blur may not have contained a letter.

[2] My copy has the simple Greek cross; Pridik adds the little curved line to right of the upright, which transforms the cross into the monogram. This addition might readily escape my eyes at so great a distance; and Pridik's copy is therefore more probable.

ϵNKOINω;[1] (*b*) ϵΥξΑ; (*c*) ΜϵΝΟΙ; (*d*) ϵΤϵ/////; (*e*) cross. Lost between 1895 and 1905 through ruin of S. arcades.

The letters were ornate varieties of the common round Byzantine forms, contributing to the architectural decoration. I did not copy the exact forms, but added a note about the form of ξ. Pridik neglected the forms even more completely (to judge from Strzygowski, p. 58).

There can be no doubt as to the general tenor. The inscription began, as it ended, with a cross. On the N. wall one read the names of several persons:[2] the rest is continuous: *τὸ κολλῆγιν ἐν κοινῷ εὐξάμενοι ἐτέ*[*λεσαν*].[3] The inscription, beyond all doubt, records the construction of the church by the common efforts of a certain number of persons. It is to be compared with inscr. 45 over the apse of No. 33, ϵΥΧΗ ΑΚΥΛΟΥ: ϵΥΧΗ ΙΝΔΑΚΟΥ: etc., *εὐξάμενοι ἐτέλησαν*, and it perhaps took the same form, *i.e.*, the vows of a certain number of individuals were recorded on the N. arcades, and then followed the statement that by their common effort and vow they completed the Kollegion.

Further, this inscription is to be compared with 52 in the annex to No. 33: *εὐχῇ Βασηλήου πρεσβυτέρου τε*[*λι*]*όθη τὸ πρεσβυτέριον*. The completion of the Presbyterion in one case, of the Kollegion in the other, are clearly parallel processes. We reserve for No. 33 the difficult question as to the meaning of the two terms, Kollegion and Presbyterion. Meanwhile we only note the marked analogy between the inscriptions alike in situation and in expression. This analogy in a religious formula is not a conclusive evidence of date, considering the uniformity of Byzantine religious custom and the small amount of change that was made in it through the ages; but still some change did occur; and the analogy may fairly be reckoned as affording

[1] Pridik omits ϵΝΚΟ in (*a*) and the cross in (*e*).

[2] The use of some collective name denoting a group of persons is improbable in view of *εὐξάμενοι*; and the supposition that *κολλήγιον* could be nominative and subject of the sentence may, for the same reason, be excluded as impossible.

[3] The restoration *ἔτε*[*ι . .*], which I once thought of, is evidently impossible.

at least a presumption that both churches belong to the same period.[1] Now the date of No. 33 (as we shall see) can be fixed with comparative certainty about A.D. 800; therefore there is a certain presumption that No. 3 belongs to about that time. This will be confirmed by a consideration of the exterior inscriptions, 16, 18.

16, 17. (R. 1905, 1909,[2] C. 1909.) No. 3. The first is published by MM. Radet and Paris in Bull. Corr. Hell., 1886, p. 512,[3] and both by me in Studies in the Eastern Provinces, p. 261. On two adjoining stones in the outer N. wall of the apse, a little above the modern level of the soil, which is higher than the ancient level. See Fig. 15.

16	17
+ ἐνθάδε κα-	+ ἐ ν θ ά[δ ε κ α τ ά-
τάκητε ἡ Στ-	[κ ι]τ ε
εφάνου μὴ	γ ν ο ῦ σ α
χάρουσά ποτ ε	
μηνὴ Νοέβρου ί	

"Here lies the daughter of Stephanus, who never showed perception or pleasure, in the month of November the tenth."

The child died unbaptised and unchristened. In place of the religious rites which she had missed, the church was built as an atonement. A pathetic interest attaches to the memorial, which is in a way analogous to the Athenian loutrophoros vase (used in the marriage ceremonies), which was placed on the tomb of girls that died unmarried.

This inscription encroaches to the right on another stone, which bears a mutilated epitaph 17 in faint letters. We see, then, that an old tombstone was used in the wall; it was cut on the right side and the inscribed surface was roughly re-dressed, but a large piece of the central surface was split off in re-dressing,[4] and the cutter ceased lest he might injure the

[1] That the analogy is significant is confirmed by the observation which will be made below, that a certain analogy exists between the exterior inscriptions in Nos. 3 and 33.

[2] *α* in *γνοῦσα* had been lost through decay of the surface before 1909: it was clear in 1905. *χαροῦσα*, or *χα(ί)ρουσα*?

[3] I disregard differences, as my copy is certified by revision.

[4] The stone is hard and durable, but difficult to work to a smooth surface.

stone too much. Thus part of the older epitaph remained; but it is so inconspicuous (owing to the partial re-dressing of the surface) that it easily escapes notice.[1] The letters are not of an early type. I could not venture to place 17 earlier than the end of the fifth century, and the sixth or later is a more probable date.

A Christian tombstone is not likely to have been disturbed very soon; and hence it is improbable that the church could be pre-Arab. Probably in the rebuilding of the city after 800 an abandoned cemetery was used as a quarry; after a long interval the sanctity of the cemetery had been forgotten. See further on 18.

18. (R. 1905, 1909, C. 1909.) No. 3. On the stone left of that on which 16 is engraved. Radet-Paris, Bull. Corr. Hell., 1886, p. 512; Ramsay, Studies in the Eastern Provinces, p. 261.

αὔτη ἡ κατύκυ-	This is my dwelling-
σῆς μου ἧς ἐὸν-	place to age
α ἐὸνος· ὄδε	of age; thus
κατυκύσο αὐτή[ν	I will inhabit it.

A reminiscence of Psalm cxxxii. 14. In the Septuagint *κατάπαυσις* is used, and *ὅτι ᾑρετισάμην* is inserted before *αὐτήν*.

The debased spelling indicates a late date; 18 and 19 are companion texts, engraved at the same time by one hand. The letters are cut broad and shallow, and are obscure except in suitable light. Copying the inscriptions in 1905 soon after dawn on a dull stormy morning, I did not recognise the identity of form; but in 1907, chancing to pass when bright sunlight was falling on the stones at the most effective angle, making the higher surface stand out in well-marked relief above the incised letters, I saw clearly that the two have the same character and are a pair engraved together and requiring to be interpreted together. Previous to that moment I had always left an opening for the supposition (improbable as it seemed) that they might

[1] MM. Radet and Paris omitted it. In 1905 I observed at first only the N., but after seeing the old tombstones in the W. wall of No. 16 I returned and read other nine letters.

be chance inscriptions, mere *graffiti*.[1] From that moment onwards I could no longer feel any doubt. The same sunlight left 17 invisible. See Fig. 15.

Other reasons had from the first made me regard it as improbable that these two inscriptions were inscribed by chance hands. When I was copying them in 1905, it seemed to me that they were to be interpreted on the analogy of a pair of inscriptions in the entrance of a small rock church beside Siniandos (near Kizil-Euren), which I had copied in 1901 and again in 1905. I repeat the text here, as the publication by Mr. H. S. Cronin, founded on my less complete copy of 1901, is susceptible of improvement. One is engraved on the left hand and the other on the right, as one enters this little church.

Left	Right
[+] *ἰσέλθομεν*	+ *οὗτος ὁ ναὸς ὁ πά-*
ἅγιυ ἰς τὸν ναὸ[ν	*νσεπτος κὲ πανσεβ-*
τ]οῦ Κ(υρίο)υ ψάλο[ν-	*άσμιός ἐστιν τῆς παν-*
τες ψαλμῦς	*υμνίτου κὲ παναχρά ν*
ΤΟΓ ATIK	*του κὲ πανμακ-*
VMMICO	*αρίστου κὲ πανενδό-*
ΔΡ	*ξ]ου κ[ὲ] [ἀθ]λοφό[ρ]ου κ[ὲ*
ΝΕΙΙΟ	*παν[ελίμον]ος*[2] *κὲ παν-*
Rest illegible.[3]	*αμ[ώμο]υ κὲ παν[α]γί-*
	ας Δεσπύνης ἱμôν
	Θε[ο]τόκο[υ ἀει]παρ
	θένου ΑΙΙΔΟ*άμα-*
	ρτολυ Λ Ͻ ΚєΝ[4]
	Ι< ΝΝΟϹΙΙєϹΟ
	Rest illegible.

The Siniandos inscriptions are the dedication to the Virgin on the right and the consecration with the ritual of psalms on the left. The analogy with 16, 18, is striking and almost conclusive: here also the left-hand inscription is the consecration of the building by a quotation from the book of Psalms, and the

[1] Studies in the Eastern Provinces, p. 261.

[2] There is no room for the correct form—*ελεημ*—: *ἐλαίμονα* for *ἐλήμονα* occurs in a Phrygian inscription, Studies in the Eastern Provinces, p. 120.

[3] In 1901 I read *ατηε* in 5, and *αρ* in 7.

[4] *ἀ[ν:]θ[η]κεν* ?

inscription on the right is a dedication to the dead child. Now, when we further take into account that these two inscriptions were engraved as companions at the same time by one hand, I do not see that there can remain any doubt. These two boldly engraved texts are the dedication of a mortuary church and the consecration of it as a place where the Psalms were to be sung. On the singing of hymns to the dead in Lycaonia and Phrygia compare the concluding lines of two epitaphs, one at Dorla (Nova Isaura) *[ᾄ]σματα καλὰ φράσουσι καὶ ἐσσομένοισι πυθέσθαι*,[1] the other in the country of the Praipenisseis, telling how each of the survivors *ὑμνοὺς σεμνοὺς ἀναπέμπ[ει]*.[2]

As to the date of the pair, 16, 18, the lettering gives uncertain evidence. The letters approximate to the style of the late dedications, 9, 20, 25, 49, but are not so degraded. We may rank these two inscriptions, 16, 18, along with 52 (which is about A.D. 840); their alignment is more regular, but 52 is engraved by the hand of a presbyter, unaccustomed to work in stone. The date by day and month indicates a low standard of education, but not so low as the formula in 20, 25, 49, etc. The relation of 16 to 17 has forced us to come down to the post-Arab period; but we should take the earliest possible date in that period, say 850. The frank acknowledgment that the church is a sepulchral monument implies on our theory a date not before the ninth century; but the epitaph is not placed conspicuously in the W. doorway as 9, 20, 25 are.[3]

The position of 16 probably indicates that the grave was under the apse of No. 3. In excavating at Emir Ghazi in 1908, we disclosed the apse of a church with a grave under the floor; and at the present day it is customary to bury a bishop under the apse.

While epigraphy thus points to a date early in the ninth century, one may very well suppose that at that time the church

[1] Luke the Physician and other Studies, p. 361.

[2] Anderson in Studies in the Eastern Provinces, p. 226.

[3] The dates which our investigation suggests as probable are 52 *c.* 840, 16-18 *c.* 850, 9 *c.* 900, 20-25-49 *c.* 920, *i.e.* No. 33 built *c.* 780, No. 3 *c* 850, No. 1 restored *c.* 900, No. 6 restored *c.* 925 (when also the narthex of No. 33 was extended, and No. 5 was built or rebuilt, but see 20).

was only rebuilt on old lines; but it is clear that the rebuilding was complete and not a mere restoration, as in Nos. 1, 6, 7.

19. (R. 1908.) No. 4. On E. wall of N. aisle, painted in white on the plaster to right of a head (now obliterated), N T

The letters are of very good shape, and favour an early date, so far as any inference can be drawn from such slight indication. The line and the row of vertical dots right of the letters are also in white paint. On N. wall of the same aisle, close to E. end, is a large painting of a horseman on a prancing steed, probably St. George.

20. (R. 1907.) No. 5. On the front of the column in the centre of the main doorway in the west front is engraved an epitaph, in large letters cut boldly and deep: cp. 9 and 25, which occupy the same position in Nos. 1, 6:—

ἔνθα κατάκητε ἡ μακάρηος Χηονήα μηνὴ Πεφρουαρήου, "Here has been laid to rest the blessed Chionia in the month of February". The abominable spelling, and the irregular alignment, mark this epitaph as of similar date to 9, 25, 49. Yet it is not a graffito. The dating marks it as less uneducated than 25; and 27, which belongs also to this church, requires an earlier date.

21. (R. 1882, 1905, etc.) No. 6. Histor. Geogr. of As. M., p. 338. On the front of the left free column supporting the W. triple doorway: *εὐχῇ Τεύκρου Παπίου*, Through the vow of Teucer son of Papias.

22. (R. 1882, 1905, etc.) No. 6. Histor. Geogr. of As. M., p. 338: Strzygowski Kleinasien, p. 216, after Pridik and Smirnov. On the extreme left side of this doorway, on the stone upon which rests the left-hand arch: *εὐχῇ Νησίου Τιβερίου*, Through the vow of Nesios, son of Tiberius.

23. (R. 1905.) No. 6. Strzygowski Kleinasien, p. 61, after Pridik and Smirnov. On the lintel stone over the doorway leading from the narthex into the church proper: *εὐχῇ Μαμμᾶ τριβ(ούνου)*, Through the vow of Mammas Tribune.

These three inscriptions are of the same class. They are placed in the most conspicuous positions that could be got in the building: they were obviously intended to be in the public eye: they are not mere *graffiti*, for they are carefully and clearly cut. We conclude unhesitatingly that they were placed by authority. What then is their purpose? Ought they to be transliterated as above; or should we read in each case εὐχή, and regard them as mere formal ejaculations expressive of the piety of Teucer and others? This latter supposition seems impossible. Such an ejaculation might be found in a *graffito*, but not in these authorised inscriptions, placed to strike the public eye. The inscriptions are significant. I take another example: at Salarama, eight hours N.-E. from Iconium, and again at Savatra I saw two large stones of the same type, each evidently the basis on which rested an altar-table in a church. One was uninscribed, the other bore the inscription εὐχῇ *Κυριακοῦ*. The intention seems clear: Kyriakos presented and erected the altar-table of this church on account of a vow, and the inscription is at once a dedication and a record. There is a passive verb understood, and the meaning is that "by the vow of Kyriakos (this altar-table was erected").

In a similar way these three inscriptions on church No. 6 must be interpreted. Three individuals, Teucer, Nesias, and Mammas, are inscribed on the church walls as donors and dedicators; their action in building the church, or parts of the church, was the payment of a vow. The inscriptions belong to the building of the church, and if we can fix their date even approximately, we have the period when the church was built.

All three must be classed early in the Byzantine period, as is shown by the simple clear shape of the letters, by the good sharp cutting, by the correct spelling, and by the personal and official names, which are of an early class. The last point is important as evidence. Certain common pagan names passed into Christian nomenclature: others failed to find a permanent footing there, and sank into disuse at an early time. No collection of the facts regarding Byzantine names has been made; but the lists of bishops who were present at the Councils from A.D. 325 to 879 give a useful conspectus, and may serve as an indica-

tion of the popularity or unpopularity of certain names among the Christians.[1] Applying this test we find that Teucer (a characteristic personal name in Lycaonia, Isauria and Cilicia, being a Hellenised form of the old Anatolian divine name Tarku) never passed into Christian nomenclature. A Christian inscription containing this name could not safely be placed later than the sixth century; and I should almost be inclined to state the latest date as the fifth century. The other names are not so conclusive, but several of them favour an early date: Nesios occurs only in the Council of 431: Mammas is found as late as 692, but was commoner in the earlier Councils: Bishops named Papias attended the Councils in 451, 503, 869. The office of Tribune seems to belong to the army in its earlier forms, *e.g.*, Theophanes, who often mentions the office in the earlier period, never alludes to it after Justinian's reign; and Professor Bury informs me that he does not remember its occurrence later than A.D. 700. There seems to have been in this city a usage of the term Tribune to designate the magistrate of the city (see 9); but this also we regard as pre-Arab.

The names, then, point to the fourth or fifth century (or the sixth at the latest). Now the formula *εὐχῇ Τεύκρου, κτλ* had already been stereotyped in the abbreviated form; and I do not know any clear proof that this had taken place so early as the fourth century. Hence we conclude that the church was probably built in the fifth century.

24. (R. 1905.) No. 6. Strzygowski Kleinasien, p. 61, after Pridik. On E. wall of the narthex, right of the door entering the church proper (over which door is 23): *εὐχῇ Νευπορι?* This is a mere *graffito.* The wall was covered with plaster, or some other kind of coating; and the *graffito* was hidden underneath this covering. There seems practically no doubt that this is the chance record of the piety of a workman, and is exactly coeval with the construction of the church. The stone is scored with lines, made to give the plaster a better grip. The inscription tails off into these lines, and it is difficult to say where it

[1] I use the index of Bishops present at the Councils, given in the last volume of Labbe's edition of the Acta Conciliorum.

ends, and whether any of the four letters in our second line are really letters and not mere chance scratches.[1] In all probability the mason who was scoring the stones began to engrave this pious phrase and left it incomplete.

The spelling *νευ-* for *νεο-* (like *θευ-* for *θεο-*) gives no evidence of date. Examples are found in the third and later centuries. The date of this *graffito* cannot be fixed. The letters, as one sees them on the stone, look later than the three previous inscriptions; but this appearance is due to their scratchy character and rather tall thin shape; and all four are, I believe, contemporary with the building.

25. (R. 1905, 1909.) No. 6. Part (*a*) in Strzygowski Kleinasien, p. 62, after Pridik, whose copy is more than usually inaccurate: (*b*) has escaped notice.[2] This inscription is engraved on the capital and shaft of the left-hand column, supporting the triple doorway in the W. front of the church—the same column that bears No. 21 on its front. Fig. 380.

(*a*) On the narrow capital of the column, S. side: *Θεόδορος δοῦλο[ς] Χ(ριστο)ῦ*, Theodorus slave of Christ.

(*b*) On the shaft of the column, S. side.

ἐκημήθυ ἥ Πα-	Papadia was laid
παδήα μηνὴ	to rest in the month
Μαρτήου ἠ-	of March on
ς τὰς δεκα-	the fifteenth
πέτε· ἀμήν.	day. Amen.
ὁ Θ(εὸ)ς μακα-	God will make
ρήση̣ τίν (or *τήν*)[3]	her blessed.

The smaller letters of (*a*) are probably due, either to the wish to get it all into the small space of the low narrow capital, or to humility. I think the latter is the explanation, and that Theo-

[1] Pridik's copy does not give them.

[2] Most of it was hid by a pile of loose stones.

[3] It is impossible to say whether the horizontal stroke between I and N is due to the engraver's intention; but I think it is not. One of the difficulties in reading the inscriptions of this late class is due to the fact that there are so many faulty strokes, which look like parts of letters, but are not so: see 9.

dorus, the father of Papadia, put his name at the top in small letters, which would hardly be visible to people passing through the doorway, while he engraved the epitaph proper, as the important part, in large deep bold letters, which would arrest the attention of every passer. On this device for attracting attention to the important part of a document, compare Gal. vi. 11, and the remarks in Historical Commentary on Galatians, p. 465. It is true that the letters on the capital are better, but the difference is explained by the greater care needed in cutting the small letters; the general type is similar (*viz.*, the ordinary round Byzantine lettering), and the bad spelling is common to both parts.

The main epitaph is of the same class as 9 and 20 on the central column of the W. doorway in Nos. 1 and 5; the spelling is equally debased, and the dating is more debased, being similar to the style of 49, 60, 61, which must be assigned to a very degenerate epoch, perhaps the tenth century.

There is, however, one important difference: the epitaphs of Mousianos and Chionia are on the front of the central column of the doorways, the most public and conspicuous position that can be found in the exterior of the church, while that of Papadia is on the side of the column. But, as soon as we state this difference, we see the reason for it: the front of Papadia's column was already occupied with the inscription of Teucer. Then we observe that the situation chosen was the next in honour, *viz.*, the left side of the central entrance. There seems to have been some prejudice against placing the name and epitaph of a human being on the right-hand side of the church entrance, as appears in the inscription of Nesios here (see also 28). On the right of the entrance to the church at Siniandos (see p. 531) is an inscription in honour, not of a human being, but of the Panagia.

As the epitaphs of Mousianos and Papadia belong to the same late period, and as both churches Nos. 1 and 6 are restored in a remarkably similar style, we connect the epitaphs with the restorations, and suppose that the reconstruction of No. 6 took place a few years later than that of No. 1, corresponding to the probable slight difference in date of the inscriptions (see the full

discussion on Nos. 3 and 33). It has no bearing on the date that a different sepulchral formula is used in the two cases; these formulæ seem to have been used alongside of one another for several centuries.

The inference from the epigraphic evidence is that No. 6 was built in the fifth or sixth century, that it fell into ruins, and was reconstructed soon after 900. Looking at the N. wall or at the apse from outside, I felt no doubt that the lower part was built by a different hand from the upper part: the construction is distinctly superior in the lower part.

26. (R. 1905, 1908.) No. 8. On the right after entering by the N. door, part of the old painted plaster remains; there is part of a head with the letters above and at the left ΜΙΧΑΗΛ and ΚΙ. Michael, the archistrategos, the commander of the hosts of angels, was represented here.

27. (R. 1908.) No. 5. On the outside of the apse is the name ΛΕΟ. This must be connected with inscrip. 58 on the memorial chapel of Mahaletch *μνήμη Λέοντος*, and with 6 the boundary stone (?) *Λέο(ντος)*.[1] The conjecture inevitably suggests itself that Leo was the Metropolitan (52), c. 787, who built church No. 5, and marked the bounds of the territory: possibly he improved or erected the splendid church on the highest peak of Mahaletch, and was buried on the peak beside the church, and a memorial chapel erected there in his honour. This, however, makes the date about 800, which seems too early for No. 5 and its dedicatory epitaph. Perhaps there was a second Leo, who built No. 5.

28. (R. 1905.) No. 12. Strzygowski Kleinasien, p. 140, after Smirnov. On the left side as one enters the chapel.

ἐκυμήθη ὁ Δομεστη-	The Domesticus was laid to rest
κὸς μην[ὶ] Μαΐῳ δ'.	in the month of May, the fourth.

This is a small chapel built on to the side of the large church No. 21 after the latter was complete. The time when

[1] The lettering in all these cases may be compared with 45, 50, 51.

No. 12 was constructed has no bearing on the date of No. 21, except as proving that No. 21 was already in existence before that time. The entrance is from the south.

Though the spelling in this inscription does not sink to the level of the worst epitaphs,[1] yet it is of a low class, and the date by month and day, without any indication of the year, indicates a degenerate state of education. This is not the epitaph of a rude villager, where ignorance might come earlier in the general deterioration of knowledge, but of one of the highest military officers of the State; and the chapel on whose entrance it is cut is an architectural gem. The letters are of the pointed class, which is difficult to date; but they are vulgar and rude in character, and I should regard them as late. In this district they most resemble the inscription on the outside of No. 37, which there is some reason for dating about A.D. 850-70. This seems a suitable period for the epitaph of the Domesticus. In regard to this inscription the question might be raised whether it is a graffito: the letters are small, thin and shallow, little more than scratches on the stone. But this appearance is explained by the hardness of the surface and the cutter's want of skill at that late time. The subject and the situation set aside the supposition that it is an idler's scrawl. The name of the Domesticus is not stated: he was the only inhabitant of this remote and obscure town who had ever attained that high rank.

29. (R. 1905.) No. 15. In clearing the small N. porch with its font, we found an inscription in very good letters: *Κ(ύρι)ε, βοήθι τῆς πενίας [Λ]ου[κίο?]υ*, "Lord, help the poor Lucius". This church is probably an expression of the religious awe associated with the crater, on whose edge it hangs. If the stone, which bears a moulding of better style than usual, belongs to the church, it proves the building to be pre-Arab; but it was part of some ornament, and may be carried.

The church was transformed into a mosque by the Seljuk Turks; and the W. wall, with its low rude doorway, and part of the N. wall of the narthex were rebuilt. The new parts contain many epitaphs, showing that the stones were taken from a

[1] *E.g.*, 49, 60 f

Christian cemetery.[1] These furnish no evidence as to the date of the church, but for convenience are placed here, 30-35.

30. (R. 1905.) No. 15. In Turkish W. wall:—

ἐ]κημή[θη] Μηχ[αὴλ . . .	Michael . . . boures was laid
βουρης μη(νὶ) Ἀ[πριλίου	to rest in the month of April
κϛ′ ἔτ(ει) ϛχο[.][2]	twentysixth day in the year 6670.[2]

The date furnishes a proof that the Christian town existed at least a century after the Seljuk conquest of Central and Eastern Asia Minor. If . . . *βουρης* is part of a personal name, as seems probable, the style of nomenclature is of a later type than anything in the other epitaphs.

31. (R. 1905, 1907.) No. 15. In Turkish W. wall, placed sideways: letters coloured red.

ἔνθα [κατά-	Here lies
κιτε Λε[οντιω ?	Le[ontio ?]n
ν πρ(εσβύτερος) αχου	priest: in month . . .
γι θ	thirteenth (day).

The letters at the end of l. 3 seemed certain, but I could not guess how the missing name of the month should be restored. In 3 *ου* and 4 *θ* seemed to belong together, being much larger than the other letters.

32. (R. 1905, 1907, 1908.) In W. wall, beside 31, but upright: letters red. The restoration is hopeless:—

ἔνθ]α κατ[άκιτε λιθ ?]ο[υ]ργης[3] [ ]*ου.*

[1] In 1905, copying the following inscriptions soon after dawn on a dull morning, I regarded them as proving that the church was built later than 972 (Studies in the Eastern Provinces, p. 263). In 1907, clearing out the church, we disclosed a pulpit, an astonishing thing in a Byzantine church, but Miss Bell recognised it as a Moslem mimber and foretold that if the wall were cleared beside it, the mihrab (djami, as the Turks call it) would be found. This happened; and our Moslem workmen were deeply impressed to see that the building was sacred.

[2] Any year from 6670 to 6679 is possible, according as the text be complete or a unit be wanting: A.D. 1162-1171. In 1905, I thought it possible that the date was *συο′* (putting the rebuilding of the wall 200 years earlier); but in 1907 and 1908 we satisfied ourselves that *σχο′* was intended.

[3] I thought of [*Φιλοστ*]*όργης*, with irregular letters, but it seems impossible. Perhaps the Ρ should be read Υ as one of my three copies has it. *Γεούργης* for *Γεώργιος* is not impossible.

Although the letters in 31 and 32 are similar in size and colour, the stones do not fit together exactly.

33. (R. 1907.) No. 15. In Turkish W. wall: upside down: bad letters:—

ἔν]θα κατάκη[τε . . .

34. (R. and C. 1908.) No. 15. In Turkish N. wall of narthex; upright; probably complete:—

Βασίλ(ιος) πρ(εσ)β(ύτερος).

35. (R. and C. 1908.) No. 15. In Turkish N. wall of narthex: upright: stone complete:—

ἔθα κατάκητε [ὁ?] ἀλ-
κετάριος? Βασίλις,
ἐκιμίθι μι(νὶ) Ἀπρε[ιλίου.

The small mark between Ε and Α in l. 1 may be either accidental, falsely cut, and meaningless, or *ο* mutilated, or *σ*. Is Basil the defender (*ἀλκετήρ*), or is there an error?

36. (R. 1905, 1907, 1909.) No. 16. Callander, Studies in the Eastern Provinces, p. 177:—

ἔνθα κατάκιτε Παβλῖνα, κτλ.

After many attempts I failed to understand the following rude letters (and even Calder could not aid).

37. (R. 1905.) No. 21. Dug up in the nave, among walls of a Turkish house: it probably does not belong to the church, and has no bearing on the date of the building:—

μνήμη α · σο · · δι[α]κ[όνου?].

This formula is comparatively early, so far as my experience goes, about A.D. 500-700.

38. (R. 1907.) No. 21. Same as 37. *ὑπὲρ* or *βοήθει? τοῦ οἴ]κου τούτου [δοῦλος* or *Ιησοῦ] Χ(ριστο)ῦ. φ(υλάξει) θ(εό)ς.*

39. (R. and C. 1908.) No. 29. On fragment of moulding fallen in the apse (text in Fig. 115):—

εὐχῇ Ινδάκο[υ	Through the vow of Indakos,
Νησίου Οὐαληρί[ου	son of Nesios, the son of Valerius,
λιθοξοῦ	stonecutter.

The form of the letters gives little clue to the date, except that they have no post-Arab characteristics. I should place the inscription before the Arab conquest. The names are characteristic of a family of this city (see 9). The masonry seemed earlier in style than that of any other church in the Kara Dagh.[1] The large blocks of which the important parts are built made me at first hope that we had found a Roman building. This fashion is unique in the Kara Dagh, where small stones are used (except on Bash Dagh, an early castle), and I cannot think that it was likely to be introduced once in a late church, and then disused.

40. (R. 1908.) No. 31 (at Deghile). On capital of left doorpost in W. doorway: *Κ(ύριο)ς* or *Κ(ύρι)ε βοίθι*. The letters are small and very faint, so that they escaped me in 1907. My wife detected them in 1908. The forms are not distinctive, but have no marked post-Arab characteristics, and seem too regular to be very late. This is a graffito, not visible from the ground.

41. (R. 1907.) No. 31. On a stone in E. wall, close to S. corner, ΙΝΔ. This is a mere fragment, beginning at the left side of the stone with a mark of abbreviation, implying that (as is at any rate obvious) there was some preceding word before *'Ινδ(ικτίων)*. An old stone therefore was recut and used to build the church. It is improbable that indictions were used for dating in this remote town before the end of the fourth century, as new ideas penetrated slowly so far. The letters are good, but not distinctive. The church was much later than this stone.

Another argument proves beyond question that this church can hardly be so late as 700. It was worked into the fortifications, which must have been constructed about that time, when the city in the plain was destroyed and the Arabs were a constant terror. The church door opens outside the city wall; and it is impossible to suppose that such an entrance was intentionally made part of the fortifications; but, since the church was

[1] It slightly resembles No. 31. Miss Bell (p. 96) had not seen it.

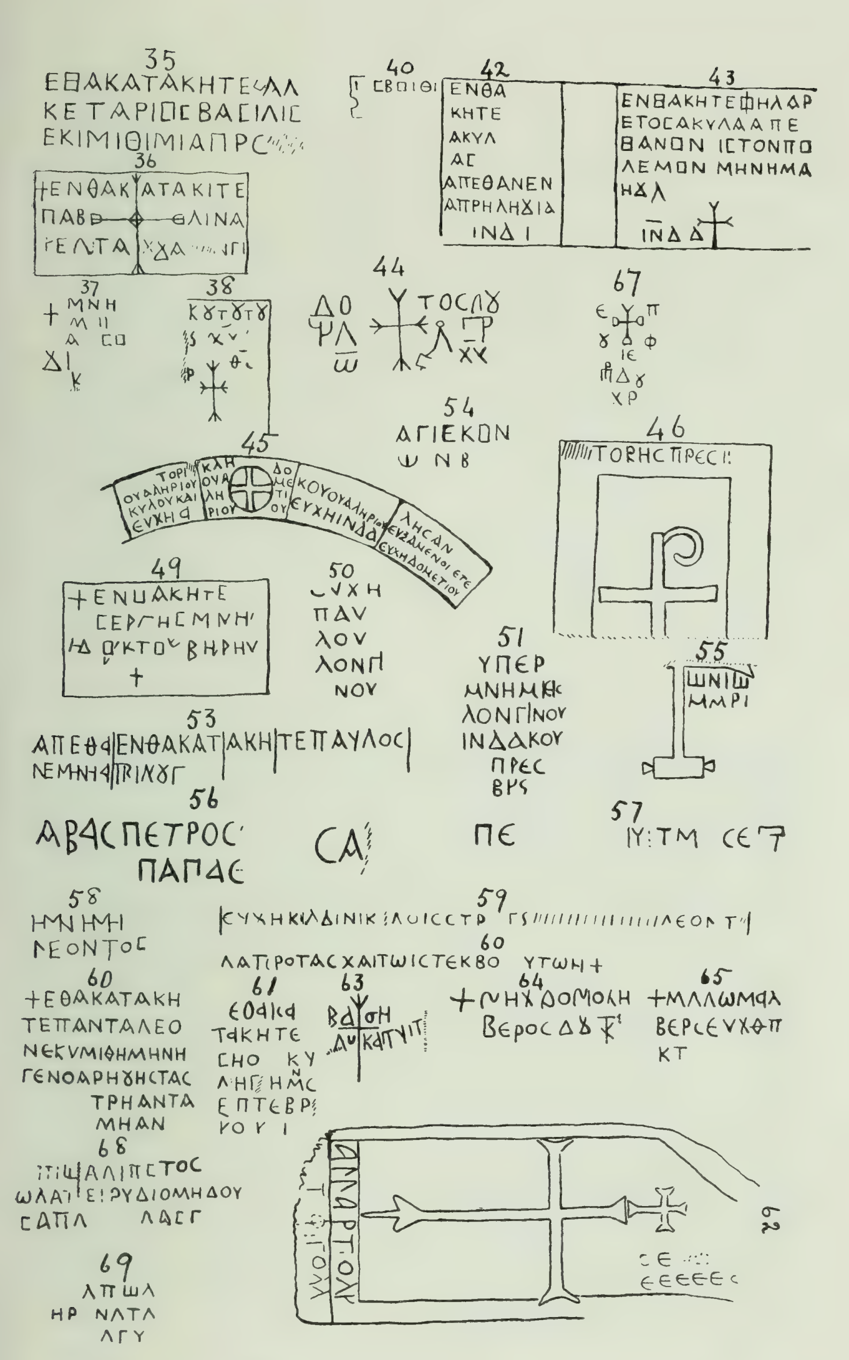


FIG. 379.—Inscriptions 35 to 69 : except 39, 41, 47, 48, 52, 54, 66.

5

25

Fig. 380.—Inscriptions 5 and 25.

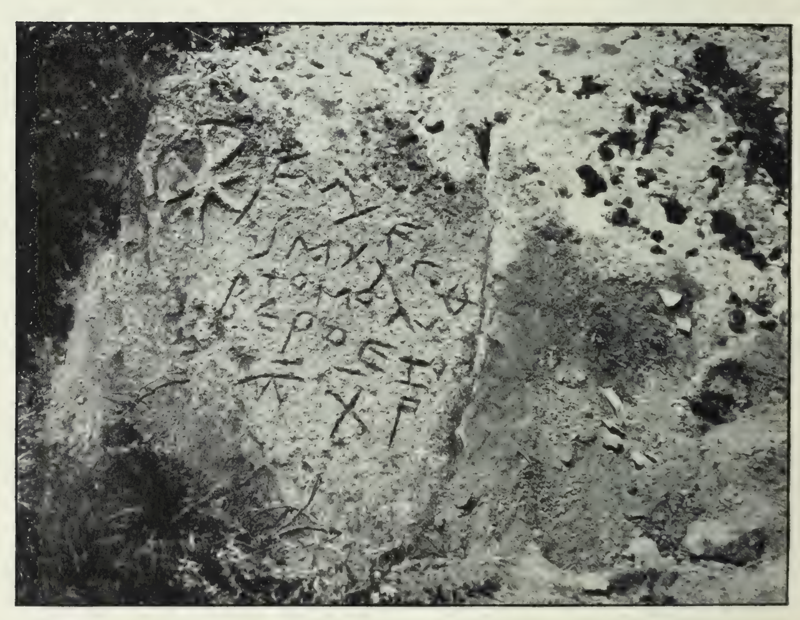


Fig. 381.—Inscription 66.

there already, the door had to be accepted. It was not a serious danger, as the slope below is long and steep, though practicable. Similarly, No. 3 was accepted as part of the late fortification, though its W. door was a cause of weakness, and required some outwork to defend it. Moreover, pre-Arab date is suited for the bird and vase ornament on the capital of a column in the nave, which looks like a survival of the earlier Lycaonian Christian art.[1] Nothing of that kind is likely to have survived the Arab raids beginning about 660 A.D., when the older art and civilisation of the plateau seem to have been completely destroyed. Accordingly, No. 31 may be dated with confidence between 550 and 650 A.D.

42, 43. (R. 1907.) No. 32. On two stones low in W. front, the last and third last at S. end: they are separated by a narrow stone.

ἔνθα	Here
κῆτε	lies
Ἀκύλ	Akyl-
ας	as ;
ἀπέθανεν	he died
Ἀπρηλήου ια'	April 11
ἰνδ. ι'	Indiction 10

ἔνθα κῆτε Φηλάρ-	Here lies Philar-
ετος Ἀκύλα, ἀπέ-	etos, son of Akylas ;
θανον ἰς τὸν πό-	I died in the war
λεμον μηνὶ Μα-	in the month of
ήου λ'.	May, the thirtieth,
ἰνδ. δ'	Indiction 4.

The two inscriptions are clearly intended to be a pair, arranged symmetrically, though rudely. Philaretos, a hero of the war (*i.e.* the great war against the Arabs), was buried here and an epitaph granted him as a mark of special honour on the corner-stone of the church. His father who died later was buried near him. It cannot safely be inferred that the church

[1] Fig. 127 : see Miss Ramsay in Studies in the Eastern Provinces, pp. 32, 34, 40, 70.

was built as a memorial of Philaretos; but I am inclined to think that this was the case, and that the custom was as yet novel, so that the epitaph was placed in a much less conspicuous place than later (though the place was honourable). His father, who probably had much to do with the building of the church, was laid beside him later.

These two epitaphs are late and badly spelt, but are not in the worst class. They use the full chronological reckoning characteristic of the middle Byzantine period by day, month and indictional year. They do not show the utter degeneracy and barbarism educationally of the latest epitaphs. If the Akylas here mentioned is identical with Akylas who was one of the dedicators of the neighbouring church, No. 33, the period would be about 750-770, which agrees well with all the evidence.

44. (R. 1907.) No. 32. Between the left and the middle door of the triple W. doorway. This is the same position which we found to be epigraphically so important in No. 6; and the inscription must be regarded in the same way as connected with the construction (or the restoration) of the church: *Δουλωτὸς δοῦλος Χ(ριστο)ῦ πρ(εσβύτερος)*, "Doulotos, slave of Christ, priest". This inscription cannot be regarded as early, and yet it is certainly not of the latest class: it belongs to an age of more education than the barbarous epitaphs in the doorways of Nos. 1, 5, 6. One thinks most readily of a date like A.D. 700-800.

No other inscription of this kind in the same position occurs in the city,[1] and its purpose is not clear. It occupies the most conspicuous place in the church; and the only place that was equally or more honourable is the space over the apse or the arcades of the nave. Some importance must therefore be attributed to Doulotos in relation to the building of the church: he was probably the priest in charge of the monastery adjoining. Also, we may fairly suppose that this formula was substituted for the older formula *εὐχῇ Τεύκρου*, which was engraved in the same position on No. 6. No. 32, then, was presumably

[1] Inscr. 67 is similar in kind, but there is no evidence as to its original position, except that it was not on a door-column.

built later than the churches on which the formula *εὐχῇ κτλ.* was engraved.

45. (R. 1905, 1907, 1908.) No. 33. On the front of the four central stones that form the arch of the apse (*a*) on the stone left of the keystone; (*b*) on the keystone, which has a cross in the centre; (*c*) and (*d*) on the two stones next to the keystone on the right:—(*a*) *εὐχῇ Ἀκύλου καὶ Οὐαληρίου*; (*b*) *Οὐαληρίου Δομετίου Κλητορί[ου]*; (*c*) *εὐχῇ Ἰνδάκου Οὐαληρίου*; (*d*) *εὐχῇ Δομετίου· εὐξάμενοι ἐτέλησαν.*

M. Clermont Ganneau, in letters full of instructive ideas during 1907, asked whether ΚΛΗ in (*b*) could be read ΥΧΗ, *i.e.*, [ε]ὐχῇ; but, though the suggestion seemed tempting, I found in 1908 that it was impossible. I saw then also that ΚΛΗ had been crowded in close to the top, and there was not room to continue the name, which therefore was completed on stone (*a*): this further proves that it was the last name begun on (*b*). I take (*b*) as the stemma: "of Valerius, son of Dometios the son of Kletorios". We gather from the whole four, that Valerius with his son Indakos and his father Dometios and an associate Akylas vowed and constructed the church. It seems certain that these inscriptions placed so honourably are contemporary with the building, and that the last two words sum up the meaning and purpose of the construction.

It is not possible to determine with certainty the date of these inscriptions (and thereby of the church). The forms of the letters are fairly good, and certainly not very late. The names all passed into Christian nomenclature except Kletorios, which was very rare. Indakos, indeed, does not occur among the bishops present at Councils, though the cognate Inzas (*i.e.*, Indas) does;[1] but Indakos was common at Maden Sheher, and current in Christian Lycaonia.[2] These examples, however, are rather favourable to a comparatively early date; though it must

[1] Inzos is the form in the lists, but is probably due to erroneous inference from the genitive Ἰνζοῦ. Inscriptions have Ἰνζᾶς or Ἰνδᾶς (Studies in the Eastern Provinces, p. 170). On the equivalence of z and d compare Histor. Geogr. of As. M., p. 285; Classical Review, 1905, p. 370.

[2] Studies in the Eastern Provinces, p. 29; Luke the Physician and Other Studies, p. 385.

be allowed that isolated examples occur in the Council lists of names, which seem unlikely to be retained in Christian nomenclature.[1] The other names all lasted in Eastern Christian use.

On the other hand, in so honourable a position very careful work is to be expected. The letters are not good enough for the position; and their occurrence implies degeneracy in education. Thus, on a balance, we may suggest the eighth century as the probable period when the church was built and the dedicatory inscriptions engraved. See 50, 52.

46. (R. 1907.) No. 33. On the stone forming the W. end of a grave, which occupied the S. end of the narthex; the head was W., the feet E., if we may argue from the place of the epitaph :—

[*Κλη*]*τόρης πρεσβ*[*ύ*(*τερος*)]. Kletorios priest.

The form of the *rho* is late. There is nothing otherwise distinctive of time. The grave was probably made at the time when the church was built; but the connection of the church with the grave is not so clear as in No. 12, No. 3 and No. 5, and the restoration of No. 1. The restoration Kletorios[2] identifies the buried presbyter as the head of the family that dedicated the church (see 45, 50, 52). Thus the memorial character is suggested, but not clearly intimated; and No. 33 is in this respect in the same transition stage as No. 32, which was probably built in the same period.

47. (R. 1907.) No. 33. On a fallen lintel in the narthex: this may possibly have been the lintel of the door from the narthex to the nave, but the narthex was full of debris, and there can be no assurance on this point (Text, Fig. 137) :—

εὐχῇ Μα[. . . Through the vow of Ma[mmar?].

The fragment affords no sufficient evidence of date.

48. (R. 1907.) No. 33. On a lintel lying in the narthex, where it is prolonged to the north. This prolongation was

[1] *E.g.*, Segermas of Orkistos and Tates of Kolybrassos, 692; Lykastos, Pardos, Manzo, 787.

[2] Κλητόρης, -ρίου : cp. Σέργης -γίου in 49, Φιλοστόργης, etc.

made at a later time; a door was opened from the original narthex into the prolongation; and this lintel may perhaps have been placed over the door. The fall of the whole W. wall of the narthex down the slope on W. which was ascended by a broad flight of steps, destroyed all evidence about the construction of the W. front (Text, Fig. 137):—

εὐχῇ Κοδραδίω[νος? This inscription is distinctly later in style of lettering than 42-47. The name is Quadration.

49. (R. 1907.) No. 33. On a stone in E. wall of the prolonged narthex, near the junction with the original narthex:—

ἔνθα κῆτε Σέργης μ[η]νὴ ιδ' Ὀκτουβηρήν, "Here is laid to rest Sergius in the month, the fourteenth, of October".

This epitaph is of the latest and worst class, like 20, 25, 60 f. A.D. 900 is the earliest date to which we can assign it consistently with our view about the other epitaphs. As the letters are thin and shallow, it might plausibly be classed as a *graffito* of even later date, cut after the church was ruined. More probably it is connected with the extension of the narthex after A.D. 900. A short line between *M* and *N* in l. 2 has been obliterated by lapse of time.

50 (R. 1907) and 51 (R. 1905, 1907). No. 33. On the two side pillars of the triple gateway leading into the enclosed space N. of the church. The gateway is close to the apse.

50. Left.		51. Right.	
εὐχῇ	By vow	*ὑπὲρ*	In
Παύ	of	*μνήμης*	memory
λου	Paul	*Λουγίνου*	of Longinus,
Λουγί-	son of Lon-	*Ἰνδάκου*	son of Indakos,
νου	ginus	*πρεσ-*	Pres-
		βυ(τέρου)	byter.

These are evidently companion inscriptions, engraved at the same time by the same hand, with the utmost care, to record the erection and dedication of this gateway, which is the most pretentious of all the monuments of the city. The enclosure was bounded S. by the church, and N. by a large house; the E. wall and the gateway were now added: arches were built later

to finish the enclosure W.[1] We may safely assume that the church was closely associated with the house, and with the family to whom the house belonged; also that the same family built the church and the gateway, *i.e.*, that Indakos 51 is identical with Indakos 45 (*c*), one of the donors of the church. A comparison of 45 and 51 gives the stemma:—

Kletorios (died about A.D. 776, aged eighty or more).
|
Dometios (joined in dedicating No. 33, an old man).
|
Valerius (built No. 33 about 776).
|
Indakos (joined in dedicating No. 33, aged about twenty).
|
Longinus (died about 816).
|
Paul (built gateway in honour of his father).

Kletorios probably died at an advanced age, as his great-grandson joined in building the church in his memory.

Indakos was not at that time old enough to have a son associated with the memorial.[2] Longinus then was born after the church was built. The gateway N. of the apse was erected in memory of Longinus by his son Paul. As Paul had no son associated with this erection, it is probable that Longinus died at an age not very advanced. This reasoning is rather hypothetical, but it will be corroborated by the circumstances of 53; and, so far as the relationship of the parties and the sequence of the buildings are concerned, the theory seems trustworthy.

Now, what evidence of date do we gather from 50, 51? As suits their conspicuous and honourable position, the engraving is very careful, and belongs to a period when education had not been wholly lost. The letters are large, bold, and in general well shaped. The two inscriptions are clearly divided from the latest class. On the other hand, they are not very early. In

[1] Still later the narthex was prolonged N. on the W. side of the arches in an irregular and degraded style: see 48.

[2] It may be assumed safely that a son, however young, was likely to be associated in the dedication.

spite of the evident care in engraving, the cutter made a bad error in the word μνήμης, for at first he omitted the last η ; then he corrected the final ς to η, and added a ς at the end ; but, as there was not sufficient room, he had to make it very small. Also *iota* touches *gamma* in Λουγίνου. Such errors indicate that the art of engraving inscriptions was now little practised. Further, the forms of *alpha* and of several of the *upsilons* are late. Otherwise the forms are of the ordinary round Byzantine type, which lasted for centuries. In these indications there is nothing inconsistent with a date near A.D. 800. The first impression would perhaps be favourable to an earlier period,[1] but one recognises that the comparative goodness of certain forms is due to the care which was expended on these very conspicuous ornamental inscriptions at a time when some traces of education still survived. An argument that Paul was young when these inscriptions were engraved, though of hypothetical character and doubtful value, will be stated on 53.

Inscr. 50, 51 are clearly earlier than 48, 49 in the N. prolongation of the narthex. This prolongation, therefore, was built later than the E. wall and gateway. On the other hand, one can hardly hesitate to pronounce them later than 45 (*a*)-(*d*): the forms of *alpha* and *upsilon* are conclusive.

We notice that here as usual the more honourable position on the right is given to the dedicatory inscription, while the record of the dedicant is placed on the left.

52. (R. 1905, 1907.) No. 33. The longest inscription found at Barata was engraved on the S. side of the N., one of two arches bounding the W. side of the enclosed space. Their purpose and character are obscure. They seem to have probably been built before the narthex was prolonged, as they are architecturally inconsistent with it in purpose, and seem distinctly better in character.

[1] It must be remembered that our dating is all comparative : we arrange the inscriptions of this one site in the order of degeneration, and we have one positive date in 52, and the approximate dates of the beginning and ending of the Arab inroads.

εὐχῇ Βασηλήου π	ρεσβυτέρου τε[λι-
όθη τὸ πρεσβυτέριο	ν ὑπὸ Λέοντος
τοῦ ἁγιοτάτου μητροπο	λίτου ἕος Κοσταν-
τήνου τοῦ ἁγηοτά	του μητροπολίτου ἔ-
τ(η)αν'· κὲ ἐλθόντος μου ἐν	ἀδυναμίᾳ κὲ μὶ δυ-
νημένο[υ] μου ἐκτελ	ῖν τὰ θῆα δηδάγμα-
τα, ἑκουσήᾳ μου τῖ γνόμ[ι]	κὲ αὐθερέτο βουλῇ
παρετησάμην τὴν	πολυπόθητον
τοῦ Χ(ριστ)οῦ λιτουργίαν	· τῇ δὲ προσευχῖ
ἐπημένιμε· κὲ παρ	ακαλô τὸν ἐλε-
ήμοναν ὡς εὐσπλ	άχνος μυ δος
ἁμαρτι μάτον ἄφ	εσην ἅμα κὲ Ἠρίνις
	τῖς συνβήου μου

ἐ[γρ]ά[φ]θι διὰ χιρ[ὸς] Β[α]σ[ι]λίο[υ] πρεσ[βυτέ-
ρου μινὶ Σεπτεβρίου ιν(δικτιῶνος) δ' [1]

The inscription of Basil is certainly late. The spelling is bad, and the alignment is extremely irregular. The shape of the letters at first seems very bad; but on examination one sees that this is partly due to the nature of the stone and the uneven surface; and, if we allow for the fact that Basil claims to have written the inscription with his own aged and unskilled clerical hand, the general type of letters is like that of 50, 51, which differ in being carefully cut by a mason. The spelling, however, is worse; yet, though badly spelt, the language is that of a person whose familiar tongue was Greek. Basil was an ill-educated ecclesiastic; and all the differences between 50, 51 and 52 are accounted for by varying standards of education. Fortunately, he gave dates after both ecclesiastical and vulgar fashion; and his carefulness in this respect shows that he wrote before education had utterly degenerated. The ecclesiastical date is by two metropolitan bishops (of Iconium, of course); the first of these, Leo, may confidently be identified as the Leo who represented

[1] The augment was not expressed, though it occurs in other verbs in the same text: compare τελεύτα but ἐνόσησεν, ἔζησεν, in the famous Roman Christian inscription dated under the Consuls Pius and Pontianus (A.D. 238). Also the reduplication is omitted in ἐπημένιμε for ἐπιμεμένημαι. The inscription is badly lighted, and the letters are worn and sometimes much broken. In 1905, I gave four hours to it, and published the imperfect copy in Studies in the Eastern Provinces, p. 258. M. Clermont Ganneau kindly sent me some important corrections and suggestions. In 1907 I spent on it some hours nearly every day for a fortnight, and at last got a complete copy.

Iconium at the second Council of Nicæa, A.D. 787; and the other is placed by this inscription half a century later. The date is only approximate, as Leo may have held his office for a good many years; but the period is marked as the fifty years around A.D. 800.

Now what is the meaning of this inscription, and what events does the period of fifty-one years mentioned in it include? These questions are not easily answered, as the language is obscure and ungrammatical at the critical point. So much seems certain from comparison with inscr. 15: "by the vow of Basil the Presbyterion (whatever it may have been) was completed".[1] But the following words are ungrammatical: "under Leo until Constantine". It must be supposed that Basil is speaking of some ecclesiastical construction which was in progress from the time of Leo to that of Constantine; this work must be either some subsidiary building added by Basil to the church (*viz.* the part on which this inscription was engraved), or the entire structure of the church and the extensions on the N. side. Now when we deduct the parts of the structure which are covered by 45, 50, 51 and 48, the portion that can be connected with Basil's inscription and regarded as his work is only the two arches behind the prolongation of the narthex; and this work can hardly have lasted over fifty-one years. The house on the N. side not being ecclesiastical, cannot be embraced within the scope of Basil's vow.[2]

It is therefore probable that the period of fifty-one years covers the construction of the entire series of buildings, the church and the E. and W. walls of the enclosed space N. from the church. We may confidently believe that the family which owned the house forming the N. side of the enclosed space con-

[1] M. Clermont Ganneau (to whom I am deeply indebted in the restoration of this inscription) would regard "The vow of Basil the Presbyter" as unconnected in syntax with the rest of the sentence. Then he would translate "the Presbyterate (of Basil) was completed under Leo until Constantine, 51 years". But we cannot admit this separation of the opening three words from the rest: see the argument in 15, 21 and 45.

[2] Moreover, it is probably older than the church, which we take to have been built by the family that owned the house (see 9).

structed the church and the adjoining buildings, for the house and the other buildings form one complex yet closely united group. It seems probable that this family would press on the construction after once beginning; and the space of fifty-one years seems a reasonable period within which the whole might be completed. To judge from the size of the house (which is quite large in comparison with most of the other private houses in and round the city), the family to which it belonged was a leading one in the settlement, and therefore able to undertake a series of works like this. Moreover, some of those who vowed do not enter into the line of descent, as far as we can trace it; and perhaps other people co-operated with the leading family.

Assuming this hypothesis, which possesses a high degree of probability, we may say that the fifty-one years (which ended in a fourth indiction) probably ran from either 776 to 826, or from 791 to 841; and the earlier date suits all the facts best.

Now, how does this agree with the sequence of generations? Let us suppose that Kletorios died in 776 at the age of eighty, when his great-grandson Indakos was about twenty; and that Longinus died about 817 at the age of forty; his son Paul might be twenty and able to plan the E. wall and gateway bounding the enclosed space. There is nothing improbable in this sequence of events. Then the inscription of Basil and the building connected with it was erected ten years later; he was an old man, who had through weakness retired from the duties of a priest; and therefore he must have lived long enough to see the whole series of constructions and was likely to embrace the whole within his view as the working out of one scheme, the completion of the Presbyterion. This term may be compared with Kollegion in 15; the latter is connected with the College of Presbyters; and Presbyterion may denote a church the charge of which rested with a presbyter (not with a bishop).

We take it that the arches of Basil were older than the prolongation of the narthex. This best suits the epigraphical and the architectural conditions. Certainly 49 and probably 48 belong to the prolongation: 49 indubitably is later than Basil's

[1] Compare Apostolion or Apostoleion, a church dedicated to an Apostle.

inscription. Probably the arches were begun (but apparently never completed) with the intention of making a W. boundary of the enclosure corresponding to that on E.; then Basil died before he completed this boundary (his boast that the work was completed was inscribed in anticipation), and the narthex was prolonged and the doorway opened in the original north end of the narthex in execution of a later plan to connect the church with the house after A.D. 900 in very bad style.

53. (R. 1907.) No. 37. On the N. exterior wall: letters rude and late.

ἔνθα κατάκητε Παῦλος·	Here is laid to rest Paul:
ἀπέθανε μηνὴ Ἀπριλίου γ′	he died in the month of April, the third.

There can be no doubt that No. 37, which is cruciform, is a memorial church, over the grave of Paul. The church is near the house of the family which built No. 33, and may perhaps commemorate one of the family. The inscription is of the later class, but not among the worst of them. The date might well be 850-900; and in that case Paul may be the son of Longinus in 50, 51, and would be seventy years old in 868. A considerable interval divides it from 50.

54. (R. 1907.) No. 37. On the keystone of the apse there is on the front a cross between Α and ω, and on the under-side the inscription:—

ἅγιε Κόν-	Holy Conon
ων β[οήθει]	help.

There was no letter visible after *β*, but one had to look up from below, and the surface is in the shade. A memorial church was dedicated to some saint. Here is a close analogy to the old Anatolian belief that the dead man returns to and is merged in the divine nature, and the making of a grave is the payment of a vow to the god.[1] See 70.

55. (R. 1907.) No. 44. Under the right arm of a large cross

[1] Studies in the Eastern Provinces, pp. 271-5, 122 f, 65.

on a large slab of whitish stone: the left arm and letters beneath are lost.

Only [’*Αποχχ*?]*ωνίῳ* and *Μαρί*[*α*] can be seen.

56. (R. 1907.) No. 46. On a rock near the little chapel.

Ἄβας Πέτρος Παπᾶς.

57. (R. 1907.) No. 46. On a neighbouring rock :—

Πέ[*τρος*?] *μ*[*ηνὶ*] *Σεπτ*?

Peter the Pope was abbot of one of the monasteries in Deghile.

58. (R. 1907.) Mahaletch. In the outside of E. wall of the small cruciform chapel near N.-E. corner :—

ἡ μνήμη	The Memory (*i.e.*, grave)
Λέοντος	(is) of Leo.

It is unsafe to draw any definite inference as to date from these few letters, except that there is nothing in them inconsistent with a comparatively early date. The first impression that they made on me, coming to them from the very late inscriptions of this region, was that these few letters were among the earliest of all. There seemed to be about them the feeling and the strength of earlier time. And that they are older than most of the inscriptions of Barata may be taken as certain. But I do not feel confident as to their relation to the earliest inscriptions on No. 6, or to that on No. 29. The form of *lambda*, which is like Attic of the fifth century before Christ, is either degenerate and rather late, or due to a slip of the chisel.

59. (R. 1907.) Mahaletch. (*a*) Over the apse in Leo's chapel, in the same position as 45 in No. 33 :—

ϵ

εὐχῇ Καλινικου? *α*[ ]*στρ*[*ατ* *Λέοντ*[*ι*

Through the vow of Kallinicus? . . . to Leo.

The forms of the second and third letters seem late, but this is due to the uncertain and wavering hand of the engraver in cutting these small shallow letters on the hard stone. Otherwise

the lettering might be of a good period. The reading is very doubtful: perhaps *ἀρχιστρατηγος*, *i.e.*, Michael, was mentioned.

(*b*) Over the arched S. door, illegible.

(*c*) On the painted plaster of the apse I read part of an initial letter, almost certainly M. If so, it was perhaps the beginning of the name Michael, beside a figure in the back of the apse. The peak bears his name, and he occurs also in No. 8.

V. Other Inscriptions

60. (R. 1907.) Yokari-Kaya-Assar,[1] where a Byzantine settlement and cemetery existed. The epitaphs are of the rudest kind, and mark a village where education was at the lowest stage. In several cases I could not read the letters, and the slight attempts at ornament were of the worst character.

ἔθα κατάκητε Πανταλέον· ἐκυμίθη μηνὴ Γενοαρήου ἡς τὰς τρηάντα μήαν, "Here lies Pantaleon: he was laid to rest in the month of January on the 31". The modern form *τριάντα* had already taken the place of the fuller *τριάκοντα*. In every respect this inscription is marked as belonging to the latest class, perhaps of Turkish time.

61. (R. 1907.) *Ibid. ἔθα κατάκητε [Ὅ]σηο[ς· ἐ]κυ[μ]ή[θ]η μ(η)ν(ὶ) Σεπτεβρύου ια΄.*

"Here lies Hosios: he was laid to rest in the month of September, 11."

62. (R. 1907.) *Ibid.* The most ornate of all the stones. Nothing could be read except *ἁμαρτολύ*: letters misshapen and illegible.

63. (R. 1907.) *Ibid. Βασήλ[ης*

64. (R. 1907.) *Ibid. -βερος δοῦ(λος) Χρ(ιστοῦ).*

65. (R. 1907.) *Ibid. [ἀν]άλωμα βερ( ) εὐχ[ῆ] Π[*

66. (photograph by Miss Bell.) *Ibid. εὔχεσθε* and *Χρ(ιστοῦ).*

[1] An elevation projecting N. from Djandar towards Kaya Sarintch: it is a yaila still.

67. (R. 1907.) On a block of stone in Maden Sheher.

ε Π ΟΥ Φ *ἱε(ρεὺς ?) πρ(εσβύτερος) δοῦ(λος) Χρ(ιστοῦ)*

The order of the five letters of the personal name or names is uncertain.

68. (R. 1907.) On a rough stone a mile N. of Maden Sheher.

τος . . . . . Διομήδου.

69. (R. 1907.) On rock at S. end of summit of Tash Tepe (W. of Kartallik), beside a ruined building (apparently not a church); surface much broken, and letters lost.

ΤΟ ⊔Ι	*τὸ [ἡρ ?]ῷ[ον*
Α Β ΛΕϹΕ	
ΚΛΗΡΟΝΟΜΟ	*κληρονόμο-*
Ν	*ν*

70. (R. and C. 1909.) In a cave at Bunar Bashi, a source beside a lake on N. end of the outlying hills W. and N.-W. of Hadji Suleiman village, 9 km. from Arik Euren station (direction 21° N. of E.).

Θε(ὸς) βοΐ[θ]η τοῦ δούλου σου ἐπ(ισκόπου ?) Χ(ριστο)ῦ 'Αν . . .

"Oh God, help thy slave, Christ's bishop, An . . ."

The formula, which is common in Christian usage (see 38, 40, 54), was adapted from a similar pagan invocation: *cp.* *Ζεῦ 'Οβόδα βοήθει Εἰρηναίῳ* in Arabia Petraea, dated A.D. 293 (Musil in Anz. Kais. Akad. Wiss. Wien, 1907, p. 140).

VI. Sculpture

Apart from the sarcophagi with subjects in relief described above, the only work of any interest was a sitting lion. At first sight I should have assigned this rude work, like other lions in a similar attitude, which are not uncommon in Central Anatolia, to the Seljuk time; but the inscription on the front of the flat basis shows that it was of the Roman period, and that it was placed on a grave. Such a sepulchral monument was very common in Pisidia and Isauria. One, the most pretentious monument in that mountain region, is described by Sterrett, Wolfe Expedition, p. 91, and alluded to by Callander (who made

a drawing) in Studies in the Eastern Provinces, p. 166. As this kind of grave monument was so common, the words λέων and λίς were used in the sense of a grave-stone bearing a lion; and the strange formula was introduced *ἐτίμησε τὸν δεῖνα λέοντα*.[1]

71. The inscription on the basis is worn and undecipherable, except that the word *γυ[νή]* or *γυ[ναικί]* occurs, showing that the monument was placed to or by a wife. I copied it in a bad light one day in 1907, intending to return when the light was falling better on it; but I omitted to do so in that year, and in 1908 it had disappeared.

One remarkable feature was disclosed afterwards in a photograph. On the side of the base, on which the lion sits, there are represented two small animals in low relief. This is an archaic device, and may be regarded as an instance of pre-Hellenic artistic custom persisting in the Roman time (compare the sarcophagus described on p. 517).

In the bounding wall W. of No. 1 we saw two slabs with rude reliefs. Miss Bell took them out and photographed them. They are lintels: on one is a very rude human face, on the other animals equally rude. I take these as village work of Roman time.

VII. Wine-Presses

Many wine-presses are cut in the native rock on the hillsides. One of the largest, near No. 6 and No. 9, consisted of an oblong hole, 2·70 metres long, 1·22 broad, 1·15 where the broken sides are best preserved. The bottom slopes strongly; and a hole at the lower end conducted the liquid into a curved receptacle, 1·15 by ·90 by 1·1. Over the back of those presses, which are well preserved, there is a square hole in the rock to receive the end of the lever by which pressure was exerted on the grapes.

[1] On the ungrammatical double accusative, see Studies in the Eastern Provinces, p. 278. The awkwardness of the formula led Rohde, Psyche, p. 679 n. 8, to understand that a grade of initiation in the Mithraic mysteries was meant; and Cumont, Monum. rel. au cult de M., p. 173, was half inclined to accept this opinion. On λίν, *cp.* Studies *loc. cit.*, and Sterrett, Wolfe Expedition, no. 64.

CONCLUDING CHAPTER

THE ANCIENT NAME OF MADEN SHEHER

IN conclusion, the question must be treated, what was the name of this remarkable city, whose ruins are the most imposing, almost the only imposing, monument of Byzantine times in Lycaonia. That country has preserved to us nothing that is Hellenic, hardly anything that is Roman except inscriptions, little that makes any show in Byzantine or in Hittite history: some highly interesting Christian gravestones of the late Roman time at Nova Isaura, some remarkable rock churches at Kilistra, a very few isolated Hittite inscriptions in different places, and one extremely rude, large Hittite monument at Fassiller[1]—such is the entire list, apart from the Kara Dagh. In the Kara Dagh, however, both the Hittite and the Byzantine monuments are remarkable in character and number, imposing as a spectacle, and mutually illuminative in their idea.

We start with the assumption (which every student and every traveller will admit as highly probable and almost certain), that the site which has been described in the preceding pages was a bishopric. Its importance from the dawn of history onwards, the dominating situation of the mountain, and the extent and character of the ruins, place this almost beyond question. In the list of Lycaonian cities and bishoprics, after all the certain attributions are eliminated, only three names remain whose claim to be identified as Maden Sheher deserves consideration, Hyde, Thebasa, Barata.[2] The claim of Thebasa has been suggested only by myself, but dismissed after consideration[3]: Barata convinced my judgment in Hist. Geogr.

[1] The Ibriz monument is in Cappadocia, Iflatun Bunar in Pisidia.

[2] Derbe was placed here by Leake, followed at first by Texier, who afterwards retracted in favour of Hamilton's suggestion that Derbe was at Divle, and Lystra at Maden Sheher. These opinions need no refutation.

[3] Studies in the Eastern Provinces, p. 266. I need not state an argument: no one has ever held this view, and strong (though not absolutely conclusive) reasons disprove it.

(1891), p. 337, and ever since. I see no other alternative, as the evidence stands. The case is as follows.

The Byzantine Province of Lycaonia, formed about A.D. 372, falls into three Regions, 1 South-Western, 2 South-Eastern, 3 Northern. Hierocles and the earlier class of Notitiæ enumerate the cities of the Province in this order: the later class of Notitiæ [1] reverse the order of the latter Regions, and place the Northern second, the South-Eastern third.[2] Barata was in the South-Eastern Region, which was bounded N. by the long line of Boz Dagh, E. by Cappadocia, S. by the Taurus Mountains, and W. by the Isauro-Cappadocian hills and the territory of Iconium. See Map, p. 502.

The order of enumeration in Hierocles and the earlier Notitiæ—Derbe Barata Hyde: Laranda Barata Derbe—points to a site in some position not far from Maden Sheher. The order in the latest lists—Thebasa Barata—affords no evidence, as the position of Thebasa is doubtful, and Barata is last in the list.[3] Barata was in the Province Isauria from 295 to 371, which favours a position at least as far south as Maden Sheher, and is distinctly unfavourable to Waddington's view that Barata was at Kara Bunar, ten hours N.-E. of Maden Sheher; [4] it is im-

[1] These give the new order of the restored Empire about A.D. 900.

[2] Simple juxtaposition of the Byzantine lists demonstrates this, see the comparative table in my article "Lycaonia" in Oesterr. Jahreshefte, 1904 (Beiblatt), p. 63. That the order of those lists was largely determined by locality has been universally admitted, especially in the case of Hierocles: the Notitiæ are more faulty in all Provinces: in Lycaonia the earlier class transfers Ilistra to the Northern Region, the later class shifts Perta to the South-Eastern. The article here quoted will be referred to in the sequel simply as "Lycaonia".

[3] Except Perta, which is misplaced (as it belongs to the N. region) and therefore affords no evidence.

[4] If M. Waddington were right in placing Barata at Kara Bunar, Hyde, which lay in Lycaonia on the frontier of Galatia and Cappadocia (Pliny, v., 95), would have to be put at some point to N. or N.-E.; but there is no site in this direction that I can discover after much search and inquiry except at Emir Ghazi. Emir Ghazi is not in Region II. of Lycaonia, where Hyde was. Moreover, I feel convinced that it was the site of the Byzantine tourma Kasis, or Kases (the Khasbia of Ptolemy). The overwhelming probability seems to be that Hyde was at Kara Bunar, and that its territory stretched

probable that Isauria extended so far; Kara Bunar naturally would go along with Iconium in the reorganisation of the Provinces by Diocletian about 295.[1]

The sole positive evidence as to the position of Barata is contained in the Peutinger Table, which places it fifty Roman miles from Iconium on the road to Tyana. The road which is meant is in all probability not the direct road by way of Emir Ghazi, but the detour (still invariably used by waggon and horse traffic) by way of Kybistra (Eregli). In modern times this road goes through Kara Bunar and north of Ak Göl; but in ancient time it took a much straighter line, past the N. side of Kara Dagh to Sidamaria (Ambararassi) and along the south side of Ak Göl. This route was abandoned in Turkish time, partly because of the marshes which were permitted to form N.-W. from the Kara Dagh, and partly on account of the Turkmen tribes, who had one of their chief centres at Hotamish (N.-E. from Kara Dagh) very near that line of road.[2]

This road to Sidamaria and Kybistra did not enter Maden Sheher; but at seventy-five km. (fifty Roman miles) it would be at its nearest point to that city. This point might very well be taken as giving the distance to Barata, being the place where a branch went off to the city, and doubtless there was at the fork a village of the territory of Barata. This village might be fixed precisely by more minute examination; but ancient villages are dotted all over the plain,[3] and were apparently more numerous than the modern villages (many as they are). The decisive proof of this opinion as to the Roman road would be the dis-

far N., including all the coasts of the small near salt lake, and bordering on Khasbia and Arissama which both belonged to Cappadocia rather than to Lycaonia (though Ptolemy puts Khasbia in Lycaonia, he assigns this region of Lycaonia to Province Cappadocia).

[1] My interpretation of a corrupt entry in the Nicene lists is that Hyde, the city at Kara Bunar, was classed in Pisidia with Iconium and Savatra from 293 to 371: Lycaonia, p. 85.

[2] I have described the danger caused by the Turkmens to trade in Luke the Physician and Other Studies, p. 184 f.

[3] I refer to the fertile parts, not to the barren district N. and N.-E. towards Boz Dagh, which the East part of the road from Iconium to Kara Bunar traverses.

+ΕΥΧΗΒΛCΗΛΗΟΥΠ
ΟΘΗΤΟΠΡΕCΒΥΤΕΡΙΟ
ΤΥΑΓΙΟΤΑΤΥΜΗΤΡΟΠΟ
ΤΗΝΟΥΤΟΥΑΓΗΟΤΑ
ΤΛΝΚΕCΛΙ) ΟΝΤΟCΜΥΕΝ
ΝΗΜΕΝΟΝΜΟΥΕΚΤΕΛ
ΤΛΕΚΟΥCΗΑΜΟΥΤΙΓΝΟΜ
ΠΑΡCΤΗCΑΜΗΝΤΗΝ
ΤΟΥΧΟΥΛΙΤΥΡΓΙΑΝ
ΕΠΗΜΕΝΙΜΕΚΘΠΑΡ
ΗΜΟΝΑΝΩCΕΥCΠΑ
ΑΜΑΡΤΙΜΑΤΟΝΑΦ

ΡΕ …
ΥΠΟΛΕΟΝΤΟC
ΛΙΤΟΥΕΟCΚΟCΤΑΝ
ΤΟΥΜΗΤΡΟΠΟΛΙΤΟΥΕ
ΑΔΥΝΑΜΙΛΚΕΜΙΟΥ
ΙΝΤΑΕΗΑΔΗΔΑΓΜΑ
ΚΕΑΥΘΕΡΕΤΟΒΟΥΛΗ
ΠΟΛΥΠΟΘΗΤΟΝ
ΤΗΔΕΠΡΟCΕΥΧΙ
ΑΚΑΛΟΤΟΙΝΕΛΕ
ΑΧΝΟCΜΥΔΟC
ΕCΗΝΑΜΑΚΕΗΡΙΝΙC
ΤΙCCΥΝΒΗΟΥΜΟΥ

Ε … ΜΙΟΙΖ … ΑΧΙΡ CΩΜΑCΙ ΙΟΠΡΕC …
ΡΟΥΜΙΝΙCΕΠΤΕΒΡΙΟΥ ΙΝ Δ

Stone lost 52

ΘΕCΟ … ΙΙΙΗ …
ΤΟΥΔΑCΥΛΟΥ
CΥΕΠΧΥΑΝ
70

Fig. 382.—Inscriptions 52 and 70.









FIGS. 383-386.—The City-Goddess of Tarsus, Iconium, Lystra and Barata.

covery of a milestone in its original position ; but milestones are very rare on the Iconian plain ; and this line has never yet been traversed.[1] No Roman road in the plain has left any visible trace, except that Dikeli Tash, thirteen km. N. of Iconium, is a milestone in its original position without any surviving inscription, though no other sign of a Roman road can be detected there.[2]

As to the milestone on p. 512, I should not have expected to find on it a larger number than 54 or 55 ; but the road to Kybistra may have made a detour (possibly to a bridge over Tcharshamba Su), or it may have followed a line farther N. than I have indicated. Either supposition might account for the number 58.

With regard to the fortunes of Barata, we know nothing. It is never mentioned in history, and its coins are extremely rare (Faustina Junior to Philip and Otacilia). Demeter, Nike, and Athena are represented on the coins with nothing distinctive about them. The most noteworthy type shows the Fortune of the city, holding in extended r. an indistinct object, in l. cornucopiæ: at her feet swims a river god. This type would suit well the goddess throned on the Kara Dagh (see p. 564), if it be permitted to seek a local meaning on the coin. But the type was imitated from the well-known representation of the Good Fortune of Antioch, whence it spread to Tyana, Barata, Lystra, in much the same form. In Tyana it possesses no marked local suitability, though it does in Barata and Lystra. The same type was imitated at Tarsus and Iconium, but there the artists, feeling that a rock or mountain was unsuited to the site, placed the goddess in a chair. The site of Tyana is similar to Tarsus and Iconium; a city in the plain, round a central mound, with mountains at some distance.

In Christian story Barata is equally obscure. Only one reference to it is known to me. A saint, revered in the Church

[1] I intended to explore it in July, 1909, but was prevented.

[2] This road led to Ancyra, and was probably built by Hadrian. I have copied his milestones at various points both in Konia and near Boz Dagh on S. and N. sides (all carried). It was repaired under Severus by order of Atticius Strabo.

as "Joannes in the well," resided in Kybistra with his mother Julia and his sister Themistia. He chose a hermit's life, and went forth to live in the wilderness; an angel guided him to a well, in which he spent ten years. Then a certain Chrysias, presumably also a devotee, who was in the Forest of Barata, was brought by an angel out into the wilderness and buried Joannes. The wilderness evidently was the dreary flat land between Kara Dagh, Karadja Dagh and Ak Göl. The Forest of Barata is a remarkable detail in Lycaonia, where trees are practically unknown; and in Hist. Geogr., p. 337, I suggested that it might be due to corruption of the text.[1] The text, however, is right; and the Forest of Barata still exists in a sheltered nook on the S.-W. slope of Mahaletch (p. 5). We see, then, that Chrysias was probably a recluse, who lived in the shelter near the summit, and looked after the ritual on the holy mountain, as was the way on Mount Sinai (see p. 19 ff.); and he was naturally charged with the duty of going forth to bury Joannes. Trees were certainly as scarce in Lycaonia at that time as they are now; and the Forest of Barata was a landmark. The Forest has perhaps left one other memory in history: Ibn Khordadhbeh mentions Ras al Ghâba, "Beginning of the Forest," twenty-three miles from Kybistra on a road leading W. or N.-W.:[2] this may be a confused report of the single Forest of Lycaonia.

These reasons fall far short of giving certainty about the site of Barata; but they are cumulative, and each is independent of the others; and, taken in conjunction with the arguments stated below against any other identification of the name, they make a strong case. One confirmation lies in the fact that the theory as to Barata and Hyde (for any theory must include both), has led to further discovery; and my experience is that the surest test of theories (apart from definite external proof) lies in their pointing the way to further knowledge. On this theory I reasoned in Histor. Geogr., p. 338 f., that Kanna was a station on

[1] ΥΔΗ corrupted to ΥΛΗ: but ἐν τῇ Ὕδῃ τῶν Βαρατέων s incomplete and the further change there suggested is too violent.

[2] Lycaonia, pp. 82, 117: Arab statements of distances on roads are valueless.

a Roman road adjoining Hyde (*i.e.*, Kara Bunar). In 1904 we found Kanna on a Roman road (hitherto undreamed of[1]) leading from Ephesus by Laodiceia of Lycaonia to the Cilician Gates; and it was the station before Kara Bunar on N.-W.

Another confirmation can now be added which appears to me to have some weight. It has been shown in Part I. that Turks and Christians dwelt side by side in Kara Dagh for at least a century. Now, where a Christian population persisted the old local names were very often preserved; where, on the contrary, the older population was quickly expelled or exterminated, the old names usually disappeared. This rule expresses, of course, only a tendency, not a law; but its truth in that sense seems to me after many years' observation to be established. The preservation of the old name was accomplished in two ways: (1) by retention of the sound, pronounced according to Turkish custom, and usually modified either to suit Turkish ideas of euphony or to suggest some meaning to Turkish speakers. Examples are numberless in every part of Turkey: Amassia is hardly changed in sound: Izmir is much altered from Zmyrna or Smyrna. (2) A significant name was sometimes translated into Turkish, as *e.g.* Neokastro at the mouth of the Dardanelles became Yeni-Kale. Examples of this latter class are sometimes delusive, yet there is no doubt that real instances occur, and I think that Maden Sheher is one of them.[2] The name is shown on p. 17 to be taken from the two Maden in Maden Dagh (which bounds the site on W.). Hamilton's suggestion seems correct that the name Barata refers to "these remarkable craters, which must have attracted the attention of the ancients".[3] I believe that Barata is the Anatolian form of the Greek Barathron (a borrowed word); and that the spelling Barattha, which

[1] As the true line of road was unknown, I failed to follow up the clue, and looked for Kanna in a wrong direction.

[2] See Radet's brilliant and suggestive, but often too hasty, book, Lydie et le Monde Grec., p. 36, n. 2; also his En Phrygie, p. 123.

[3] Hamilton refers to the craters at Kara Bunar, where he places Barata. These (with others unknown to him) are even more striking in aspect than the Maden, and procured for Hyde the title on its solitary coin, "Sacred Hyde". But his words apply well to the local features of Maden Sheher.

appears in most authorities, shows the last consonant to have been one which was difficult for the Greeks to pronounce; hence they represented it in various ways as t, tth, and thr.[1] Barattha was the Anatolian name of these sacred holes and of the city beside them: the best translation which the Turks could give for this name was Maden.

The pronunciation of the name Barata in the second century was, doubtless, Varata;[2] and it is an interesting point that Varta is used in Turkish in the sense of "chasm," and metaphorically "difficulty". It is a word of the educated Turkish, unknown to the peasantry, so far as we could discover, and is given as a loan-word from Arabic; but it does not show the true Semitic type, and was perhaps adopted by the Arabs from Anatolia.

To complete the theory as to Barata, one should prove (1) that no other site can be found which agrees with the conditions required by the name: (2) that all other Lycaonian bishoprics fall according to the evidence on other sites.

(1) So far as a wide, but still not complete, exploration can be relied on, no other site fulfils the conditions.[3] Akche Shahr seems too unimportant, and as it is not far from Kale-Keui and Ambararassi (which together constitute the city Sidamaria), it should probably be classed along with them. Further, a site at Djinnli Euren,[4] N.-E. of Maden Sheher, is marked by Kiepert on insufficient authority on the Sidamaria route, ninety km. (sixty Roman miles) from Iconium, and about twenty-eight km. S.-W.

[1] The insertion of r was aided by the preceding r. The apparent use of Baratrhensis in Acta Concil. Nic. led me to think (Hist. Geogr., p. 331) that the form Barathra was sometimes used, and that Tab. Peut. (which has the corrupt Barathe) implied that form. In Labbe's edition of the Acta, however, the letter is not r, but only a broken t (as closer inspection shows); there is no authority for a second r in the name. Ruge in Pauly-Wissowa Realencycl. has fallen into the same error. Barattha is the form implied both in the Acta and in Tab. Peut. The coins give Barata, the Notitiæ imply Barata, Baratta, and Bareta. Ibn Khordadhbeh has Fàrita.

[2] This is well known: see *e.g.* Waddington, Bull. Corr. Hell., 1882, p. 288.

[3] It takes long to explore thoroughly the bare plain of Lycaonia, where one often passes within 800 yards of a site, and fails to see anything.

[4] The name "Ruins where the Djinn dwell," is significant.

from Kara Bunar. I suspect this is a site reported to me at Kara Bunar as eight hours distant on the road to Karaman: if so, its true position would be farther S. than Kiepert puts it, and nearer Maden Sheher. If any one takes the view that this site was Barata, the position would suit the Byzantine lists, but would not be in accordance with the Table (except with the correction of the number from L. to LX.). It would then be necessary to suppose that Maden Sheher was a town in the territory of Barata, but that the chief centre was at Djinnli Euren. The difference of view is unimportant, but Maden Sheher would cease to be a bishopric, which is highly improbable.

(2) Every other Lycaonian bishopric finds a site suitable to the conditions. Besides the general discussion of the Southeastern Region in the above-quoted article "Lycaonia" and in my Hist. Geogr., I add some supplementary remarks about Hyde and Thebasa, whose position is affected by the assignation of Barata. The city at Kara Bunar was inevitably destroyed in the Arab wars:[1] its position beside the direct route from Kybistra to the heart of Phrygia and Constantinople makes that certain. Its inhabitants could not retreat to a defensive position above the city as those at Maden Sheher did: the nearest safe stronghold was in Karadja Dagh, four hours E. Now at the reorganisation of the ecclesiastical system about 900 Hyde disappears, and Thebasa takes its place. Many examples occur of cities which perished in the troubled centuries preceding 900, and were replaced by new bishoprics. In such cases we usually find that the substituted city was previously part of the same bishopric; and we assume this about Thebasa, which replaces Hyde in the new order of A.D. 900. Thebasa, therefore, was not remote from Hyde; and in Hist. Geogr., p. 339 f., I suggested that it lay on a high point in Karadja Dagh. Now Segh Kale, visited and described by Miss Bell, on the loftiest peak of Karadja Dagh near its southern end, fulfils the conditions excellently; and I abandon the view expressed in "Lycaonia," p. 87, to return to my original opinion.

[1] Very slight traces of the pre-Arab city remain: it was evidently totally destroyed.

After having repeatedly travelled back and forward along the road from Iconium to Kara Bunar, and examined the country on both sides, I failed to find any signs that a Roman line of communication and trade followed this route. Not merely are there no milestones: there are only the scantiest traces of civilisation. Such traces become more numerous as one moves southward towards the line of the route from Iconium by the Kara Dagh to Sidamaria. Now, if there was not a Roman road from Iconium to Kara Bunar, the latter cannot be the site of Barata (as has been shown above). But in every respect it suits Hyde; and its position on the Savatra-Kybistra route shows that it must have been an important place in peaceful times.

Thebasa according to Pliny was in Monte Tauro, but he probably used the name Taurus in a wide sense to include any mountain in the southern part of the plateau, such as Kara Dagh or Karadja Dagh.[1] The references to it in the Arab wars show that it was a fortress near one of the roads leading from Taurus past Kybistra into the centre of the plateau; and that is not consistent with taking Pliny's expression in the narrow and strict use of the name Taurus.

In the Turkish period the bishopric Thebasa was placed under Tarsus:[2] this probably indicates an arrangement made when Christianity was dying out, and the few remaining centres were connected in new ways. Tarsus was still a strong Christian centre at that time.

[1] Strabo, p. 537, describes Argos on Hassan Dagh, N.-E. from Karadja Dagh, as *ἔρυμα ὑψηλὸν πρὸς τῷ Ταύρῳ* (Hist. Geogr., p. 353).

[2] I assume Gelzer's view (Byzant. Zft., i., pp. 247, 262) that Thiva in a late Notitia of the Patriarchate of Antioch was Thebasa. If that was not so, then the sentence in the text must be deleted.

INDEX

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II. PLACE AND CHURCH NAMES

NOTE.—*The terms Deghile, Karadja Dagh, Kara Dagh, Maden Dagh, Maden Sheher, Hassan Dagh, Bin Bir Kilisse and Mahaletch have not been included.*

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